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ESSAYS, CASES, AND SELECTIONS.

WILLIAM SHAKSPEARE AS A PHYSIOLOGIST, AND PSYCHOLOGIST. BY A. O. KELLOGG, M. D., Port Hope, C. W.

THE extent and accuracy of the medical, physiological, and psychological knowledge displayed in the dramas of this wonderful man, like the knowledge there manifested on all subjects upon which the rays of his mighty genius fell, has excited the wonder and astonishment of all men who, since his time, have brought their minds to the investigation of these subjects, upon which so much light has been thrown by the researches of modern science.

The universality of Shakspeare's knowledge, extending as it did to subjects out of the range of all ordinary observation, and comprehending those which are in our day, and we may suppose were in his, considered strictly professional and special, has led many intelligent investigators and critics into the belief that these immortal works could not have been the offspring of one individual mind, and that, in the very nature of things, the man who wrote *Lear*, and *Hamlet* could not unassisted have written the *Merchant of Venice*. This argument has been maintained with much apparent plausibility. Its fallacy, however, is rendered sufficiently apparent by the

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fact, that the knowledge displayed was very far in advance of the age in which he lived, and, as we shall have occasion to show, was not possessed by any one in his time, however eminent in any special department of science to which he might be devoting himself; and many facts not known or recognized by men of his age appear to have been grasped by the inspired mind of the poet, to whose acute mental vision, it would seem from his writings, they were as clear and certain as they have been rendered by the positive deductions of modern experimental science. This power of entering into the deep and hidden mysteries of nature and the universe—of lifting the veil, and drawing thence facts not yet manifested to the world, and perhaps not to be made manifest until after centuries of patient scientific investigation and deduction,—is a characteristic of what has been termed poetic inspiration; a power, we maintain, without fear of contradiction, more evident in the poet we have under consideration than in any other who has ever written in the English language, and perhaps it would not be unsafe to add, in any other, ancient or modern. This power consists, without doubt, first, of an extraordinary faculty for close observation, and an acute perception of the nature and relations of all things which come up before the eye and mind; and in the second place, of a wonderful faculty, only possessed by a few such persons in varied degrees, of calling up at will from the recesses of the memory with great distinctness every perception there recorded, and of making such use of it as may seem fit.

Upon no subjects, perhaps, has this extraordinary faculty of the great dramatist been more curiously manifested than those we propose to consider in this connection, viz., physiology and psychology. In fact we believe a very complete physiological and psychological system could be educed from the writings of Shakspeare—a system in complete accordance, in almost every essential particular, with that which we now possess as the result of the scientific research and experience of the last two centuries.

In the time of Shakspeare these sciences, like all others, were very imperfectly understood by men who devoted their lives to the

investigation of them. Even the great discovery by Harvey of the circulation of the blood, which may be taken as the basis of all our present physiological knowledge, had not been given to the world; for Shakspeare died in 1616, and the discoveries of Harvey were first published in 1628. Yet many passages from his dramas seem to indicate a pre-existent knowledge, on the part of the writer, of this great physiological fact. Falstaff, speaking of the influence of a good "sherris-sack" upon the blood, says:

"The second property of your excellent sherris is,—the warming of the blood; which before cold and settled, left the liver white and pale, which is the badge of pusillanimity and cowardice: but the sherris warms it, and *makes it course from the inwards to the parts extreme.*"

Let us pursue further the physiological views of the fat knight, as set forth in the same famous encomium upon his favorite beverage, sack, in order to observe how strictly they accord with the universally recognized truths of modern physiology.

Speaking of Prince John, and contrasting him with his jovial friend Prince Henry, he says:

"This same sober-blooded boy doth not love me; nor a man can not make him laugh;—but that's no marvel, *he drinks no wine.* There is never any of these demure boys comes to any proof; for thin drink doth so overcool their blood, and making many fish-meals, that they fall into a kind of male green-sickness; * * they are generally fools and cowards, which some of us would be too but for inflammation. A good sherris-sack has a two-fold operation: it *ascends me into the brain*, dries up all the foolish, and dull, and crudy vapors which environ it; makes it apprehensive, quick, forgetive, full of nimble, fiery, and delectable shapes; which delivered o'er to the voice (the tongue) which is the birth, becomes excellent wit."

We would not wish to be held responsible for the morality of all the views held by the worthy knight on his favorite subject of eating and drinking, but if this "tan of man" could again "revisit the glimpses of the moon," like the ghost of murdered Denmark, and once more roll his huge bulk from tavern to tavern in London, and in his nocturnal perambulations, guided by the light of Bardolph's red nose, should, by any accident, "roll" into a modern Exeter-Hall

temperance-meeting, he would be undoubtedly as much puzzled to know what constituted it, as he was in the days of his earthly pilgrimage, to "remember what the inside of a church was made of;" and if a modern Gough occupied the platform, he would no doubt be held up as a most pitiful example of one who had pushed his physiological views to the very extreme of physical endurance. We confess, however, that we would cheerfully give a very respectable admission-fee to hear the worthy knight argue the point at issue with the modern reformer, on pure physiological grounds, and give his reasons *why*, if "he had a thousand sons, the first earthly principle he would teach them would be to forswear thin potations, and addict themselves to sack." We assert, at the risk of being considered as anti-progressionist, or anti-teetotal, that much of the physiology set forth above by the worthy knight, is in strict accordance with the teachings of modern science; and though from its frequent abuse, as in his case, it may be looked upon as a dangerous admission, its truthfulness can not be denied.

In As You Like It, Shakspeare makes the old man Adam say:

"Though I am old yet am I strong and lusty;
For in my youth I never did apply
Hot and rebellious liquors to my blood."

By "hot and rebellious liquors" are doubtless meant such drinks as Canadian whisky and bad brandy, used to such a fearful extent in our day;—not the "excellent sherris" which he puts into the mouth of Falstaff, which was a light Spanish wine. Shakspeare was too good a physiologist and moderate temperance man to teach that such "hot and rebellious liquors" as whisky and bad brandy are good for the blood of any healthy man. His works, as well as the imperfect history of his life, show that he was one of those moderate men whose physiological views were not pushed to extremes in any direction. Shakspeare contended for truth, not for the establishment of a moral theory; and modern science has demonstrated, moreover, that he has not gone very far astray in this matter.

Let us take a cursory view of some of the conflicting physiological doctrines maintained by eminent physicians, not only in Shakspeare's

time, but long after, even down to the present century, when they were overthrown by modern scientific research, and replaced by a system which admits of positive proof, in order to observe whether the physiology of our own times, or that of the sixteenth century best coincides with the expressed views of the poet. From the physiology of his own times it is quite evident that Shakspeare could have derived no assistance whatever. There was nothing which can now be regarded as approximating a correct scientific system. All that related to physiology or medicine was a confused, chaotic jumble of conflicting dogmas and doctrines, maintained by the rival sects of medical philosophers who flourished in his time. One sect, the Solidists, referred all diseases to alterations in the solid parts of the body, and maintained that these alone were endowed with vital properties, and were alone capable of receiving impressions from external agencies. Even the vitality of the blood was denied, and this doctrine has been maintained and was prevalent until quite recently. The Galenical physicians, the Humoralists, maintained, on the contrary, that all diseases arose from a depraved state of the humors of the organized body,—the blood, chyle, lymph, &c. It is scarcely necessary to observe in this place that modern investigators have shown clearly that vitality is incident to both the solids and fluids of the body; that the blood is particularly concerned in all vital processes; that all alimentary substances, whether fluid or solid, are restorative or nutritious by virtue of the supply, after digestion, of certain principles necessary to the healthy vital condition of the blood; and that most medicinal substances act on the system after finding their way into the blood by absorption. Shakspeare appears to have been well aware of this great physiological fact, so strongly denied by many eminent physicians since his time, and even down to the present century.

Take the following for example, from King John, Act V., Scene VII. Prince Henry, in speaking of the poisoning of his father, says :

"It is too late; the life of all his blood
Is touched corruptibly; and his pure brain,
Which some suppose the soul's frail dwelling-house,
Doth, by the idle comments that it makes,
Foretell the ending of mortality."

The peculiar action of certain poisons upon the blood, and their influence on the organ of the mind, through the medium of the blood, is here distinctly pointed out.

Again, the Ghost, speaking to Hamlet of the manner of his death from poison, says :

"Thy uncle stole
With juice of cursed hebenon in a vial,
And in the porches of my ears did pour
The leprous distilment; *whose effect*
Holds such an enmity with blood of man,
That, swift as quicksilver, it courses through
The natural gates and alleys of the body,
And, with a sudden vigor, it doth posset
And curd, like aigre-droppings into milk,
The thin and wholesome blood: so did it mine;
And a most instant tetter bak'd about,
Most lazar-like, with vile and loathsome crust,
All my smooth body."

The fact now demonstrated, that certain medicinal substances and poisons induce primarily a change in the condition of the blood itself, and in the second place a leprous condition of the skin, is here pointed out clearly by the poet. The syphilitic poison furnishes a good illustration of this fact.

Again, Romeo asks the beggarly apothecary for—

"A dram of poison; such soon-spreading gear
As will *disperse itself through all the veins.*"

It is unnecessary to multiply quotations in illustration of the extraordinary amount of physiological knowledge possessed by Shakspeare. We have brought forward enough to show that on this subject he has anticipated the scientific discoveries and deductions of nearly two centuries, and we pass to the consideration of Shakspeare as a psychologist.

In relation to psychology, the wonderful prevision of the poet is still more astonishing to modern investigators. It was a remark of a late eminent physician to the insane, Dr. Brigham, that Shakspeare was, in himself, as great a psychological curiosity as any case of insanity he had ever met; and he declared that in the Asylum at

Utica he had seen all of Shakspeare's insane characters. To suppose that Shakspeare obtained his knowledge of insanity and medical psychology from his contemporaries, or from works on these subjects extant in his day, is simply absurd, for there were none in existence worthy of mention, and all the ideas of his contemporaries were vapid and undigested. Yet, notwithstanding all this, after nearly two centuries and a half, we have little to add to what Shakspeare appears to have known of these intricate subjects. For his profound understanding of these and all other matters to which he alludes, and there is scarcely a department of scientific knowledge that he has not enriched, we can only account by supposing that he looked into the volume of nature with a glance, deeper and more comprehensive than that of any other mortal not divinely inspired; seeming almost to possess the "gift of prophecy," and to "understand all mysteries and all knowledge," which he uttered "as with the tongues of men and of angels."

In illustration of Shakspeare's extraordinary psychological knowledge, let us glance for a moment at the ideas entertained of that intricate disease, insanity, by his contemporaries, in order to contrast them with his own, as set forth in his works. Insanity was uniformly regarded by the contemporaries of the poet as an infliction of the devil. All the unfortunate sufferers from this dreadful malady were supposed to be "possessed" by Satan. This was not alone the vulgar opinion, but the opinion of some of the most distinguished medical writers. St. Vitus was sometimes invoked; spells were resorted to, and amulets worn. Even such profound philosophers as Lord Bacon believed in these. Sir Theodore Mayence, who was physician to three English sovereigns, and supposed to have been Shakspeare's Dr. Caius, believed in supernatural agency in the cure of this and other diseases. One of the most common of remedial means in the time of Shakspeare was whipping. He seems to have been aware of this, as of most other things, for, in *As You Like It*, (Act III., Scene II.) he makes Rosalind say to Orlando:

"Love is a mere madness; and, I tell you, deserves as well a dark house and a whip as madmen do: and the reason why they

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"Love is a mere madness; and, I tell you, deserves as well a dark house and a whip as madmen do: and the reason why they

are not so punished and cured is, that the lunacy is so ordinary that the whippers are in love too."

In opposition to these views of insanity so universally entertained by his contemporaries, Shakspeare, as his works conclusively show, believed, with enlightened modern physicians, that insanity was a disease of the brain, and could be cured by medical means, aided by judicious care and management : all which he points out as clearly as it could be done by a modern expert.

Falstaff, when outwitted by the Merry Wives, says :

"Have I laid my brain in the sun, and dried it, that it lacks matter to prevent such gross o'erreaching as this?"

And again, when he had been induced by these same women, in order that he might be safely conveyed from the house when in danger of a broken head, to conceal himself in a basket of foul linen, under pretense of being carried to the laundress, he is by their direction taken and thrown into the Thames, he thus soliloquizes :

"Have I lived to be carried in a basket, like a barrow of butcher's offal, and to be thrown into the Thames? Well, if I be served another such trick, I will have my brains taken out, and buttered and given to a dog for a new-year's gift."

Laertes, on seeing Ophelia deranged, exclaims : "*O heat, dry up my brains!*"

Othello, when racked by jealousy, and goaded by the insinuations of Iago, was supposed to be insane. Hence Lodovico asks : "Are his wits safe ; is he not light of brain?"

Jacques, in *As You Like It*, (Act II., Scene VII.) speaks of the brain of a fool, as being "*dry as the remainder biscuit after a voyage.*"

In *Macbeth*, Shakspeare has given us in the dagger scene (Act II.) one of the most admirable illustrations of hallucination to be found. Previously to the incident described in this scene, the mind of Macbeth had been wrought up to the highest pitch of excitement, short of actual mania, by the importunities of Lady Macbeth, and the contemplation of the guilty deed he was about to undertake, and its consequences. Finally, after goading him to the verge of distract-

tion, and having, as she says, "screwed up his courage to the sticking point," he exclaims :—

"I am settled, and bend up
Each corporeal agent to this terrible feat!"

Although his purpose was determined, his mind was evidently far from being "settled." He had dwelt so long on the act, and the means by which it was to be accomplished, that his thoughts were taking a material shape, and the creations of his excited imagination had become to him as embodied realities, and stood out before his eyes as clearly and as palpably defined as real bodily existences.

This condition of the mind, to which much attention has been given by modern psychologists, is most admirably set forth and illustrated in the famous dagger scene. On first perceiving the image of the dagger, his reason, yet intact, leaves him to doubt the evidence of his eyes, and he seeks to confirm the visual sense by the more accurate and trustworthy sense of touch ; and what follows is most profoundly interesting and truthful in a psychological point of view, and illustrates the true theory of apparitions now, after two centuries, just beginning to be understood by scientific men :—

"Is this a dagger which I see before me,
The handle towards my hand?
Come, let me clutch thee:
I have thee not, and yet I see thee still.
Art thou not, fatal vision, sensible
To feeling as to sight? or art thou but
A dagger of the mind, a false creation,
Proceeding from a heat-oppressed brain?"

Looking again intently at the vision, and striving to comprehend it by the help of reason, now beginning to stagger from prolonged and excessive mental excitement, he exclaims :—

"I see thee yet, in form as palpable
As this which now I draw.
* * * * *
Mine eyes are made the fools o' the other senses,
Or else worth all the rest."

Finally, after a struggle, reason succeeds in correcting the evidence of the senses, and he exclaims :—

“There's no such thing.
It is the bloody business which informs
Thus to mine eyes!”

After the accomplishment of the bloody deed Lady Macbeth seems to have a presentiment of the consequences to her own mind and that of her husband, from the prolonged excitement, and from dwelling upon the awful circumstances their guilt has brought upon them. And here follows that beautiful apostrophe to sleep, the great preventive and restorative remedy in mental disease. She says to Macbeth :

“Consider it not so deeply.
* * * * *
These deeds must not be thought
After these ways; so, it will make us mad.”

Macbeth, in reply, alludes to another hallucination, that of the sense of hearing, and says :

“Methought I heard a voice cry, ‘Sleep no more!
Macbeth doth murder sleep; the innocent sleep;
Sleep that knits up the raveled sleeve of care,
The death of each day's life, sore labor's bath,
Balm of hurt minds, great nature's second course,
Chief nourisher in life's feast.’

* * * * *
Still it cried, ‘Sleep no more! to all the house.
Glamis hath murder'd sleep: and therefore Cawdor
Shall sleep no more, Macbeth shall sleep no more!’”

So great was Shakspeare's intuitive psychological knowledge, that every thing in his characters is in perfect keeping. If he wishes to draw insane characters, he first exhibits them as surrounded by the predisposing and exciting causes of the disease, and insanity follows as the natural result of what has preceded it.

Neither Macbeth nor Lady Macbeth appear to have had the predisposition to the disease so strongly marked as we observe it in Lear or Hamlet, and though the *exciting* causes were brought to operate powerfully upon both, still they were not sufficient to bring it about completely.

Neither could be called at any time insane, though Macbeth suffered hallucinations of sight and hearing, and Lady Macbeth was a somnambulist, and talked of the murder, and strove to cleanse her hands of the imaginary blood-stains; yet she was rational enough when awake. Each, however, feared the occurrence of the disease in the other.

In Act V., Scene III., Macbeth appears to think Lady Macbeth deranged, and in reply to the physician's remark that she is—

"Troubled with thick coming fancies,
That keep her from her rest,"

says—

"Canst thou not minister to a mind diseased;
Pluck from the memory a rooted sorrow;
Raze out the written troubles of the *brain*?"

Nothing could be more true to nature than the mental disquietude and remorse of conscience incident to guilt, as depicted by the dramatist in Act V., Scene I., where Lady Macbeth is first introduced to us as a somnambulist.

In this state of imperfect sleep she gives vent to the thoughts which agitate her mind so powerfully during her waking moments: thoughts she would fain conceal in the deepest recesses of her spirit.

She walks about with lighted taper, her eyes open, but they convey to her mind no impression of external things; but to the inward sense, the "mind's eye," the scenes and circumstances connected with the murder are painfully vivid. With this *inward sense* she sees the bloody marks upon her hands, and crying, "Out, damned spot!" strives in vain to wash them away. With this inward sense she smells the blood, and in her anguish exclaims: "All the perfumes of Arabia will not sweeten this little hand. Oh! oh! oh!"

This scene closes all that relates to Lady Macbeth, and she is not again introduced. The dramatist knew when, and where, and how to withdraw his characters from the scene, and that the prolonged exhibition of such mental anguish as is shadowed forth in the somnambulism of Lady Macbeth would be unfavorable to dramatic effect.

In none of Shakspeare's plays, if we except *Hamlet*, is the psy-

chological knowledge of the dramatist more admirably exhibited than in Lear. "The case of Lear," says a late distinguished psychologist, "is a genuine case of insanity from beginning to end, such as we often see in aged persons."

The very first act of Lear, exhibited by the dramatist, evinces that well-known imbecility incident to old age, and which frequently results in confirmed, senile insanity. Incapable alike of perceiving the hollow pretensions of affection on the part of Goneril and Regan, or the truthfulness of Cordelia, and the disinterestedness of Kent, he makes over his kingdom to the former with all its revenues, retaining only "the name, and all the additions to a king," and making only such stipulations as are in perfect keeping with his mental state, and that madness first glanced at by Kent, which was hanging over him.

With great psychological exactness Shakspeare has from the first endowed Lear with those mental peculiarities and eccentricities which experienced medical psychologists recognize at once as the forerunners of confirmed mental disease, but which are usually overlooked by ordinary observers, or not regarded as pathological phenomena, but as the ebullitions of a temper and disposition naturally fiery and irritable perhaps, and now rendered unbearable through the infirmities incident to age.

This seems to have been the view of Lear entertained by his daughters, as also by those modern critics who, far more ignorant of psychology than the poet who wrote two hundred years before them, have regarded the insanity of Lear as caused solely by the ingratitude and unkindness of his daughters. In answer to a remark of Goneril, respecting the changeableness of their father's disposition, Regan says: "'Tis the infirmity of his age, yet he has ever but slenderly known himself."

"The best and soundest of his time has been but rash," says Goneril. Regan replies: "Such *inconstant starts* are we like to have from him as this of Kent's banishment."

However this may have been looked upon by them, and many of Shakspeare's commentators of the last century, considered by the

light of modern psychological science, it must be regarded as a premonition of the disease which followed, and was undoubtedly so intended by the poet.

Time and the change in Lear's outward circumstances bring about no change for the better in his disposition or mental state, and the next thing we hear of him is that in a paroxysm of rage he has resorted to open violence, "broken the peace," and beaten one of Goneril's gentlemen for chiding his fool.

Her remarks upon the transaction show how rapidly the disease is advancing, before he has received any marked unkindness from her or her sister :—

"By day and by night he wrongs me, every hour
He flashes into one gross crime or other,
That sets us all at odds."

All through Scene IV., Act I., we trace a gradual increase of the mental excitement of Lear, rendered worse by the injudicious treatment he receives ; and towards the conclusion, after the interview with Goneril, where he is reproached by her for the riotous conduct of his train, and requested to diminish it, which request is accompanied by a threat in case of non-compliance, he becomes quite frantic with rage.

This barefaced outrage upon the kingly dignity he has reserved to himself puts him in a towering passion :—

"Darkness and devils!
Saddle my horses—call my train together.
Degenerate bastard! I'll not trouble thee;
Yet have I left a daughter."

Striking his head with rage, and pouring out such epithets as "Detested kite!" upon her, he gives vent to his insane rage in that blasting curse, that withering imprecation, which reminds one so strongly of what is frequently heard from the mouths of highly excited patients in the wards of a lunatic asylum. With an ingenuity and a refinement of malice worthy of an insane man, he seizes upon the weakest and most vulnerable point in her female nature, and to that point he directs his attack. After pouring out the vials of his

wrath upon her without stint, his rage finds vent in tears, and he says :—

"I am ashamed
That thou hast power to shake my manhood thus."

The first intimation Lear himself gives of his own apprehensions of insanity we have at the conclusion of Scene V. After amusing himself for a time with the fool he becomes more calm, and apparently more capable of taking a survey of his mental condition.

In reply to the fool, who reminds him that he should not have been old before he was wise, he says, apparently abstracted :—

"Oh let me not be mad, not mad, sweet heaven!
Keep me in temper; I would not be mad!"

It is one of the most rare things in the world to find a man decidedly insane, and yet conscious of his infirmity; yet a premonition of the impending malady, a certain consciousness that it is approaching, frequently seizes the doomed subject, as is apparent above in the case of Lear.

Thus far the whole character is psychologically consistent, and the wonderful skill and sagacity manifested by the great dramatist in seizing upon these premonitory signs, which are usually overlooked by all, even the patient's most intimate friends, and the members of his family, and thus weaving them into the character of his hero as a necessary element, without which it would be incomplete like those of inferior artists, is a matter of wonder to all modern psychologists.

We next find Lear before the castle of Gloster, where, instead of meeting with that kind reception and welcome which he expected from his other daughter and her husband, his mind and feelings are destined to receive another sad shock.

Here he finds his messenger and faithful attendant, Kent, in the stocks, placed in this degrading position by the orders of his son-in-law and daughter. He is so much astounded by the outrage and disrespect heaped upon him by their treatment of his messenger that he can scarcely believe the palpable evidence of the insult before him, and declares that they could not, dare not, and would not do

it; and when the circumstances attendant upon it are clearly laid before him by Kent, and his mind grasps the full extent of his degradation, and he finds himself spurned, insulted, and forsaken by those upon whom he has heaped such great benefits, at the expense of his own dignity, crown, and kingdom, his outraged feelings are admirably set forth in what follows :—

“O, how this *mother* swells up towards my heart!
Hysterica passio! down, thou climbing sorrow,
 Thy element's below!—Where is this daughter?”

At every step through this wonderful play we find evidence, like the above, of Shakspeare's wonderful medico-psychological knowledge—a knowledge scarcely possessed by any even in our day, except those few who devote themselves to this special department of medical science.

The influence also of bodily disturbances upon the mental faculties is very truthfully set forth by Lear in the following :—

“We are not ourselves
 When nature, being oppressed, commands the *mind*
 To suffer with the *body*.”

If a modern psychological writer, with all the knowledge of modern times at his command, were laboring to convey to the minds of his readers the manner in which insanity is induced in those predisposed by nature to the disease, in order that such persons and their friends might guard against the malady, he could not do better than point out the conduct of Generil and Regan towards Lear, as set forth in Act II., Scene IV., of the play. All the feelings of his generous nature are outraged and trampled upon. The waywardness manifested as the result of impending disease meets with none of that gentle forbearance we are accustomed to expect from the native gentleness of woman and the affections of daughters, but selfishness and ingratitude reign supreme in their hearts. Would that this were only an isolated or imaginary case! Sensible of his great wrongs, and apparently conscious of what was being wrought by them in his own generous and confiding mind, already staggering under the stroke of disease, he exclaims: “I pr'ythee, daughter, do not make

me *mad*!" And again, before quitting their presence to encounter the storm without, he alludes to the state of his mind :—

"I have full cause of weeping; but this heart
Shall break into a hundred thousand flaws,
Or ere I'll weep.—O fool, I shall go *mad*!"

We next meet Lear on the heath, in the midst of the storm. Nothing in the whole range of dramatic literature can excel this, either in sublimity of conception, grandeur of description, or psychological interest. In fact we conceive it is the psychological element infused into the scene which gives it its peculiar intensity—the howling and raging winds, the "spouting cataracts," the "oak-cleaving thunderbolts," and thought-executing fires:—in short that external commotion of the physical elements seems merely thrown in as a background to that terrible picture of mental commotion which reigns within the mind of the old man. These elements are but—

"Servile ministers,
That have with two pernicious daughters joined."

These he taxes not with unkindness; he never gave *them* kingdom, or "called *them* children." *They* "owe him no subscription"—therefore they can "let fall their horrible pleasure," and join—

"Their high-engendered battles 'gainst a head
So old and white as this."

The one absorbing idea, the ingratitude of his daughters, shuts out, as far as he is personally concerned, all idea of physical suffering. It is a well known fact that when the mind is swayed by intense emotions, the sensibility even to intense bodily pain is often completely suspended. The physical endurance manifested by the insane under certain circumstances is truly astonishing—even delicate females have been known to undergo with impunity what might be supposed sufficient to destroy the most vigorous physical constitution. This fact is most beautifully and concisely set forth by Lear in allusion to the suffering of his companions in the storm upon the heath, when they urge him to take shelter in the hovel.

"Thou think'st 'tis much, that this contentious storm
Invades us to the skin: so 'tis to thee;

But when the greater malady is fixed,
The lesser is scarce felt.

* * *

When the mind's free,

The body's delicate; the tempest in my *mind*
Doth from my senses take all feeling else,
Save what beats there."

This brings round again the ever-recurring thought of filial ingratitude, and after casting a few words of bitter reproach upon Goneril and Regan, he suddenly checks himself, yet conscious apparently of the dreadful consequences to his already shattered mind, which would result from dwelling upon it, with the exclamation:—

"O, that way *madness* lies; let me shun that;
No more of that."

The tempest which pours its fury upon his "old white head" is of little moment when compared with that which reigns within. In fact he appears to regard the former as a blessing, because it—

"Will not give me leave to ponder
On things would hurt me more."

But perhaps the most ingeniously-constructed scene in the whole play is that in which the poet brings together Lear, now an undoubted madman, Edgar, who assumes madness for purposes of disguise and deception, and the Fool. What results are to be anticipated from the operation of the extraordinary psychological machinery, now set in motion by and under the direction of the great artist, none but the master-workman himself can foresee. Here, however, all things work together harmoniously. Every thing is consistent. The appearance of Edgar, ragged, forlorn, a miserable picture of wretchedness and woe, serves only, like the elements in the former scene, to arouse the predominant idea in the mind of the madman; and filial ingratitude, nothing else, could have brought him to this state. And recognizing in him a counterpart of himself, his first question is, "Hast thou given all to thy two daughters?"

The warm sympathetic nature of Lear is strongly aroused by the object before him, whom he regards as a fellow-sufferer from like causes, and though not a king, like himself, he is nevertheless a

"philosopher and most learned Theban;" and respectfully craving the "noble philosopher's" company, and essaying to enter into scientific discourse, asks him his studies, and gravely inquires "the cause of thunder." How beautifully true all this is to nature, those who are at all acquainted with insanity can furnish ample testimony; as, also, how admirably the genuine disease contrasts with the counterfeit, with which it is here brought in contact.

In the scene in the farm-house the ideas of Lear appear still more fantastic, yet the dominant thought, the ingratitude of his daughters, is ever present. Edgar, his companion in misery, is now no longer a "noble philosopher," a "learned Theban," but a learned "justicer," and the thought of arraigning his daughters before a tribunal made up by him, the Fool—his "yokefellow in equity"—and Kent, is presented to his wayward fancy. He himself appears as a witness for the prosecution.

Goneril is first arraigned in his imagination, before this extraordinary tribunal, and then follows the testimony of Lear:—

"I here take my oath before this honorable assembly, she kicked the poor king her father. She can not deny it."

After a momentary excitement caused by the imaginary escape of one of the culprits, he seems to suppose sentence to have been passed, and exclaims:—

"Then let them anatomise Regan,
See what breeds about her heart."

Scenes quite as ludicrous as the one set forth above, are of daily occurrence in the wards of all extensive establishments for the insane, and those familiar with them can scarcely divest themselves of the idea that the poet has given in this an exact transcription of nature without assistance from his imagination.

The next information we have of Lear comes to us through Cordelia and the Physician, (Act IV., Scene IV.) he is represented as—

"Mad as the vexed sea; singing aloud;
Crowned with rank fumiter, and furrow weeds."

Cordelia immediately takes occasion to ask the Physician—

"What can man's wisdom
In the restoring of his bereaved sense?"

The reply of the Physician is significant, and worthy of careful attention, as embracing a brief summary of almost the only true principles recognized by modern science, and now carried out by the most eminent physicians in the treatment of the insane.

We find here no allusion to the scourgings, and charms, the invocation of saints, &c., employed by the most eminent physicians of the time of Shakspeare, neither have we any allusion to the rotary chairs, the vomitings, the purgings by hellebore, the showerings, the bleedings, scalp-shavings, and blisterings, which, even down to our own times, have been inflicted upon these unfortunates by "science falsely so-called," and which stand recorded as imperishable monuments of medical folly; but in place of all this, Shakspeare, speaking through the mouth of the physician, gives us the following principle, simple, truthful and universally applicable :—

"There is means, madam.
Our foster-nurse of nature is repose,
The which he lacks; that to provoke in him,
Are many simples operative, whose power
Will close the eye of anguish."

The "means" set forth by the physician, we learn at the conclusion of Act IV., were used successfully in the restoration of Lear. He is thrown into a deep sleep, and from this he awakes convalescent.

Here follows another most important consideration, which is not overlooked by this wonderful medical psychologist.

He leaves nothing incomplete, therefore the danger of *relapse* must be taken into consideration, and the means to prevent it are pointed out with his usual truthfulness and accuracy. This we have in the advice given by the physician to Cordelia. He says :—

"Be comforted, good madam. The great rage,
You see is killed in him; [and yet 'tis danger
To make him even o'er the time he has lost.]
Desire him to go in; trouble him no more,
Till further settling."

The late distinguished physician to the insane, Dr. Brigham, remarking on the above, says : "Now we confess almost with shame, that although near two centuries and a half have passed since Shak-

speare wrote thus, we have very little to add to his method of treating the insane as thus pointed out. To produce sleep, to quiet the mind by medical and moral treatment, to avoid all unkindness, and when the patients begin to convalesce to guard, as he directs, against every thing likely to disturb their minds and cause a relapse, is now considered the best, and nearly the only essential treatment."

But of all Shakspeare's plays none is so exceeding rich in profound psychological knowledge as *Hamlet*. Upon the consideration of the characters he has given us in this wonderful offspring of his genius, we can not, however, enter at present.

CASE OF HALLUCINATIONS.

THE particulars of a series of hallucinations herewith given, were communicated in writing by the young lady who was their subject to her professional adviser, a gentleman of large experience in mental affections, and a valued contributor to this journal. With the consent of the young lady, they were transmitted for publication. The doctor vouches for the entire truthfulness of the story, and gives its subject a high character for reliability and intelligence.

The candor and veracity of the narrative are indeed manifest in itself, and form a great part of its value and interest. Nothing is more common or less worthy of attention than stories of apparitions, visions and dreams told by persons, who, in their most normal condition, and on the most matter-of-fact subjects, are yet, through ignorance and defective sense, entirely unreliable. The frequent repetition of these phenomena in the same person, is also of interest, as calculated to give them greater weight. To expect that they should occur, and that no theory of their origin or mission should be formed by those who experience them, is not perhaps warranted by the history of phantasms among any people, however enlightened, in any age. The noblest equally with the most inferior minds have been

superstitious in this respect, and have taken revelations, predictions, and warnings from the inverted and extraordinary action of their own nervous centres. But if for many centuries almost no progress has been made in the explanation of these phenomena ; if they have served the purposes of prophets, oracles, wizards, miracle-mongers, saints, witches, ranters, mesmerists, *et id genus omne*, from the earliest to the present time—they are no longer the opprobrium of physiology, and when what is even now known in regard to them has been generally taught, the belief in their supernatural origin and bearing will be simply a delusion ; differing in form only, and not in kind, from those of the insane. Apparitions, visions, dreams and hallucinations of every sort are analogous to what physicians recognize constantly as the results of disease, and to what experimentists have produced by various means. All these are shown to arise from similar conditions, whether artificially or naturally induced, or by the action of disease. These conclusions have of late been firmly established, and promise the most beneficent results in staying the disastrous mental epidemics, that have a perennial source in popular ignorance and superstition.

Delusions of the senses have usually been divided into hallucinations, and illusions ; the former, those sensations falsely supposed by their subject to be produced by external objects ; the latter those produced by a mistaken perception of objects. But this definition limits the latter to an unimportant class, more properly styled deceptions. The more useful method seems to be to make hallucination the generic term,—thus doing away with the phrase, delusion of the senses, so calculated to confuse,—and to make illusion synonymous with it, as is practically done by most writers. The physician may make a division of hallucinations into physiological, and pathological, with a certain advantage. Under the former term will be included all those hallucinations which belong to the state of reverie, and which have an obvious or probable relation to the mental condition of the subject. This would include the greater part of the apparitions, visions, and deceptions of the several senses, common to the Swedenborgians, Spiritualists, etc., of the present day, and most

of the numerous isolated cases like that about to be detailed. Pathological hallucinations would include those cases in which there is no probable relation between the phantasms presented and the mental state, and which are not connected with reverie, or similar conditions. Of this kind are most of the delusions of acute insanity; of those produced by malarial, alcoholic and other poisons, and certain gases; and those which follow positive lesions of the nervous centres.

The class of hallucinations to which we have already referred, and only which we can at present notice, is the physiological. It may be objected to this term that no hallucinations are strictly physiological. But under the common-sense use and acceptance of the word it will be allowed to be sufficiently appropriate. The first step toward the experience of hallucinations of this class is the state of reverie. This condition is a most common, and usually a well-distinguished one, quite distinct from those of sleep and waking and intermediate to them. It is common to all classes of men, and to every order of mind. Whether in the most feeble minded girl it be given up to idle fancies and airy castles, or whether in the rapt seer and the abstracted sage it be devoted to the sublimest visions of moral truth, and the discovery of universal laws, the condition is essentially the same. By persons of a nervous temperament and delicate organization it is entered voluntarily and often unconsciously; while to others it is only possible under the most favorable circumstances, or not at all. It is simply a state of inverse vision, in which, the inducing circumstances differing as widely as they may, the sensations received from the external world are shut out or not attended to, and the workings of the brain are alone noted. Visual hallucinations are in this state the most common, and are called apparitions where they appear before the open eyes, and visions when the eyes are closed. The form of the apparition is the representation, by laws as yet unknown, of the dominant idea of the moment, and its projection among the realities of the external world. Dreams are of the class of visions, and, in their most vivid form, belong to the condition of reverie when it borders on sleep. Somnambulism is a manifestation of this state, and its phenomena are identical with

those known as mesmeric or biological. These latter are embraced under the term *monoideism*, which is only an artificial *somnambulism*.

Thus premising we shall find little to excite astonishment in the well-told story which follows. Bodily and mental exhaustion is well known to be favorable to the production of the state of reverie. Engrossing emotions and ideas, darkness, loneliness, and sad music have the same tendency. It will be observed how all these on different occasions met in the experience of the lady, before the apparitions were seen. It is evident that she had a firm faith in apparitions as forerunners of death before her first experience of any such fatality. This belief would be an agency to determine the shape of the first apparition, and the repetitions are accounted for with less difficulty. As for the sequences of death after the seeing of the apparitions, that one's natural fears should at times truly anticipate an evil, as well when they chance to act upon a susceptible organization to create phantom pictures of that evil as when these are not thus produced, surely ought not to be thought strange. Happy indeed if our fears were never realized!

The story will suggest a comparison of its phenomena with those of the so-called spiritual order, so familiar, by description at least, to all our readers. It needs no adept in mental science to find the exact counterpart of one in the other. The difference is only in the name, and in the theory of the origin and purpose of the visitations. The apparitions would probably have delivered in words their useless warnings, but that they were not expected so to do. The noises would no doubt have "rapped out" their messages if it had been required of them. But the superstitious belief under which the young lady's experience was possible has so much greater claims upon our sympathy and respect, from its ancient birth and the mystery which it leaves, than the modern delusion in which the unseen world is laid bare to the most minute and curious survey, that we forbear further comparison, and give place to the—

ACCOUNT OF THE HALLUCINATIONS.

I was born April 9th, 1840, and am just 19. My health is good,

and constitution strong, I think, though as a child I was delicate, owing to over study. My temperament is melancholy though not gloomy. I seldom if ever suffer from what people call "the blues." My mother's uncle drove himself mad trying to solve the problem of perpetual motion. My father never exhibited any peculiarities of mind, or saw visions, until his last illness. He always had a presentiment that he should die when about 43 or 44 years of age. He was not superstitious, but always laughed at my visions, as fancies.

The first time I was alarmed by an apparition was, I think, in 1855, when I was on a visit to Ireland. One day I was preparing to attend a party, and had gone to my room early in the afternoon to lay out my clothes ready for the evening; also to sew some rosettes on my shoes, in which I was engaged just in front of the looking-glass, where, glancing up, I saw reflected a face with grey hair, looking over my shoulder. I was not afraid, but thought, "How foolish I am;" worked on a little and looked up again. It was still there. Trying to believe I had been deceived, I worked on for a few seconds, and then looked again—and there it was! Thoroughly frightened, I ran from the room, not to re-enter it alone. Next day I wrote home to ask if anything was the matter. They answered me that all were well but my uncle, who had been very ill, *but was better then*. When a month later I returned, I learnt that he had died just about the time I had seen the face in the glass, but that they did not like to tell me, for fear of spoiling my pleasure. When I returned to England, the brother of the young lady whom I went to visit came to stay at our house for a time. He was a fine youth of twenty, with very large, and peculiarly earnest hazel eyes, very curly hair, and altogether of very unmistakeable appearance. He remained with us for about two months, when having an appointment in India he left us. Arrived there he wrote home regularly, saying that he liked the place *so* much, that it agreed with him *so* well, and that he was never better in his life.

One morning, either two or three days after what we call "Guy Fawkes' day," (5th of November,) I woke suddenly—with all my senses perfectly clear, which was the more strange as I had ever

been most difficult to arouse. The moment I opened my eyes, I saw my friend George B., bending over me, his face within a few inches of mine, his eyes so fixed into mine that I could not withdraw my gaze. It was broad daylight, being about eight or after, and I saw he was in his usual dress, and, even to the curls of his hair, looking as distinct in form and color as a living figure. Much surprised, though not in the least frightened, but, on the contrary, experiencing a most unearthly calmness, (as I always do when I see these visions) I arose to a sitting posture. He also arose till he stood upright, and still looking earnestly at me he receded a few steps, then disappeared. I did not feel alarmed, but got up and dressed at once, for fear that when I told my friends they should say it was all a dream. All that day, wherever I went a ceaseless knocking followed me; and, though our house was very large, I heard it in every part. If I went into my dressing-room I heard it there on the toilet-table, and in the drawing and dining-rooms, though each on different stories. Going through the halls and passages it rapped along the walls. In fact, I heard it everywhere, except in the streets. My friends laughed at me when I said I was sure I should hear some evil of George.

A day or so after, I went from my own room to sleep in that of a young lady who was staying with us at the time. It was a large, double-bedded room, and the night was bright and moonlight. The candle had been out some little time, and my friend was asleep, as I could hear by her heavy, regular breathing. Suddenly I saw a tall, white figure near the door at the foot of the bed. It walked right up on it, and came close to me. Thinking it was Miss B., walking in her sleep, I sprang up, saying, "Miss B. ! Oh, Miss B., where are you going ?" at the same time trying to clasp her. My arms went through the figure, and then I knew it was no mortal. Somewhat frightened now, I cowered down, and ere long fell asleep, more than ever convinced that my friend George was either dead or dying. Very soon afterwards we heard that he had died of fever on the 8th of November, the date of the first appearance.

This happened in November, 1855, and the following May, we came to Canada, and settled in G——. One evening papa, mamma,

sister and myself, were invited to the house of an acquaintance to spend a social evening with cards, music, &c. Not feeling inclined to join the card-players, I sat down at the piano, feeling unaccountably sad. The door was just, or rather nearly opposite to me, being on the left of the piano. Of a sudden I looked up, and was astonished to see poor George B., standing in the door-way, the lights shining full on him, and he looking earnestly at me. Thinking I had deceived myself, I played a little, and looked up. Yes, there he was, without doubt. I turned away, played on, then looked again; still he was there. Calling my sister, I asked her to go into the hall with me. We went. Not a soul—or rather nobody—had been near the place. I told mamma of the occurrence, and when we looked to see the day of the month we found that it was the 8th of November.

The next time that I saw anything of the kind, was just before we left G——, to come to T——. I had gone into the kitchen for something. The girl was in the garden, and I distinctly saw a woman standing in the door-way. A few evenings afterwards, we were all sitting around the supper-table, on which burned two large spirit-lamps, when I saw a woman, dressed in black, standing behind papa's chair. Leaning on it, the light fell full on her. She was a stranger to me, and bore no resemblance to any one I knew. I did not at the time, but do now think it was a warning of my papa's death. I told him, and, as usual, he laughed at me. I saw nothing more till just before my papa's and sister's illness. My health was delicate at the time, owing perhaps to change of climate. We were at this time in T——, and residing in Ann street. One evening, feeling tired, I left the rest of the family at supper, and came to bed by myself. In passing my dressing-room, on the way to my bedroom, I saw a head looking out on me from behind the door. I called out to them to come quickly up, as I was lonely or ill, or some such excuse, I forget what, but I did not say a word of what I had seen, not liking to make the rest nervous. A few days after this, I was in my dressing-room. It was in the afternoon, about two o'clock, perhaps. I stood in front of the looking-glass arranging my hair, when I saw reflected a bright, fresh, rosy-looking face, just such a face

as my poor sister's. I turned round and heard at the same time, and for a quarter of a minute and more after, a sound resembling the dropping of a number of pieces of tin, or silver coins, all over the floor of the room. Greatly surprised, I told papa at once; also what I had seen a few nights previously.

Not long after this, and on the very night-week before that on which papa was taken ill, we were all invited to spend the evening at the house of a friend. Mamma was too ill to go; and partly because I was fatigued, and partly to keep her company, I determined, though nearly dressed, to stay at home. So papa and my sisters went. I took a book and sat down at the table to read, as mamma soon fell asleep. Our girl went to bed about nine, and I was the only one in the house awake. I was so deeply interested in my book that I did not notice how time passed. Presently I heard some one, with, judging from the sound, very long nails beating on the table. Looking up, I saw seated opposite me, so close that by stretching out my hand I could have touched him, a man in ordinary black clothes. He was on the chair, at the foot of mamma's couch. Directly I looked up the nails ceased tapping the table. As I looked at him he vanished. I saw him for about four seconds, I should think. You may fancy I was neither nervous or excited, when I tell you I did not disturb mamma, but sat there for three or four hours longer, till papa came in. I own I was shocked, but not nervous or excited. Papa was surprised and grieved to see me looking so ill when he came, and attributed it to being up too late. Not wishing to frighten mamma, I said nothing about the vision till next day, when papa, anxious to dispel my fears, said: "Why, you silly child, what nonsense! Here am I, strong and well, and yet a night or two since, when I went to bed I saw opposite me a bed, myself lying dead on it; and every time I opened my eyes I saw the same." Within a week from this he was taken ill, and died in a few weeks. During the last week of his illness scarcely a night passed but I saw some apparition. The first time I was disturbed was just about a week before his death. I was lying awake, not at all nervous, for I had not the least idea that I should lose my papa. My face was turned

to the wall, when I felt the pressure as of a heavy hand on the pillow behind me. Ice-cold fingers touched me, and a cold hand encircled my neck. Such horror seized me that I must have become insensible, for sense and recollection left me. Next morning I mentioned this to mamma. All that week, to the time of papa's death, I saw women in white, and sometimes in black at my bed-side. What was very strange, too, all the night that poor papa was dying, I saw two women in the room, besides mamma and the nurse. When I entered, or looked up from papa, who required our unceasing care, I saw a strange woman in black standing behind nurse, and another at the door. After his death I saw no more of them, at least not till my sister was seriously ill. She at the time of papa's death was poorly, with influenza, nothing serious. She had taken a powder to induce perspiration the previous night, but hearing, about seven next morning, from our cries that papa was going, she rushed from her bed without throwing anything round her, and kissed him just as he breathed his last sigh. Then she refused to go to bed again, threw herself down on the rug in the parlor, with her head to the fire, where she persisted in lying, and kept calling for brandy and water, which was foolishly brought her by the servant and nurse, we being too distracted to notice anything. The consequence was, she became feverish, and was obliged to take to her bed. In the meantime, I bore up as well as I could, feeling that as eldest child I should not give way, but endeavor to comfort the others, and poor mamma; so till night I never shed a tear, but went in with every one who called to where papa lay. But in the evening I could not restrain myself any longer, and had hysterics. On one of these occasions a gentleman friend carried me fainting into the street for air. It was very quiet, when suddenly we both heard a loud voice, coming from we could not tell where, and saying in distressed and agonized tones, "Fanny," "Fanny," "Fanny!" as much as to say, "Oh, do not, I entreat you, distress yourself so!" In a moment I was calm and strong. We neither of us said a word about the voice, but entered the house at once. Next day he asked me if I had heard it. I told him I had, and, seeing that the thought greatly agitated me, he added,

"Oh, I dare say it was some one calling Harry!" but I knew better, for nothing could be more distinct than the voice and words. A day or two afterwards, I went to my sister's room to sit with her, as she was lonely. It was about seven in the evening. As I ascended the stairs with a lamp in my hand, I saw two women robed in black at the top, one each side of the stairway. I was suffering too deeply to feel fear, so went on. The figures disappeared as I neared them. As I entered the room where my sister lay, I saw papa behind the door, looking very pale. I looked several times to make sure I had not been deceived, and each time saw him there. I sat down on the bed with my back towards the figure, until I could bear it no longer, when I called some one else to take my place, for I knew no one else in the house could see the spectre. I think it was the next day the doctors said we must all leave the house at once, or we too should have the fever; so we went to the house of a friend.

One evening, a few days after my arrival, a loud ring at the door-bell woke me. I started up, and saw, as I imagined, one of the ladies of the house by my side. I spoke to the figure, and it vanished; and at the same time I heard my friends saying something about "poor Sophia," my sister's name. Greatly alarmed, I called to them to bring a light, as I was sure I had seen some one in my room. I then asked who it was that rang at that early hour, (about four or five o'clock). They told me it was one sent out to say that there was a change in my sister. I thought they meant a favorable change, so fell asleep, feeling happier and more hopeful than I had felt since papa's death. The same day my friends broke the tidings of my sister's death to me as gently as possible. It had taken place about three o'clock in the morning, and mamma had at once sent to acquaint us with the melancholy intelligence.

From that time till last May I saw nothing. Last Queen's-birthday I had been out, walking about with a gentleman friend. Towards evening we came in, and I went to my room to change my walking-dress. I had nearly finished dressing, and had only to get on my slippers, when, turning round, I saw papa standing near the door. So distinct was it that I felt frightened, and, snatching up the

lamp, I rushed from the room. When I reached the parlor, where they were all sitting, I felt re-assured and somewhat ashamed; and, as in my hurry I had forgotten my slippers, I determined to return for them. So, taking the lamp, I opened the folding-doors between the front and back parlors, and ran up against the figure. I met no resisting power; had I done so I should have hurt myself severely, no doubt. I was greatly agitated when I saw it, and rushed back to mamma, who inquired what was the matter with me, I looked so ill. I told her what I had seen.

One night, some months after this, a gentleman friend called. He had not been long present before I had occasion to go up stairs for something. I did not take a lamp, not being afraid, but went in the dark. Coming down, just as I reached the bottom of the stairs, I saw papa standing within a foot or two of me. A soft phosphoric radiance seemed to surround him. He was very pale, as I saw distinctly by the strange light, though all was dark around me. I was very much frightened, as I should have to pass close to him to re-enter the parlor. My brain seemed to reel as I ran desperately past and gained the room where they were all sitting. When I told them how I had been alarmed, some one went into the passage, but saw nothing.

The last and by far the most horrible vision I ever had, was on the 8th of December last (1858). I woke up one morning before dawn, but, as mamma burns a lamp every night, it was quite light in our room. I had been awake about ten minutes or a quarter of an hour, and could not go to sleep, do what I would. However, as my mind was very pleasantly occupied, I did not mind much. Of a sudden I heard a heavy stamp, as if some one were trying to attract my attention by stamping with the foot. I raised my head, and to my horror saw an old person, who might have been a man or a woman; for the figure had on a white dressing-gown, and a kind of black, skull, or Glengariff cap. I could not see any hair, or should have been better able to judge of the sex. The face was that of a corpse, pinched and drawn by long illness and old age. The profile was turned towards me, and was delicate and regular, and clearly

defined against the wall at the side of it. One hand was across the chest or waist, and the other hanging straight down. I rose on my elbow the better to make my observations. There were no clothes hanging in that part of the room, so that I could not have been deceived by any thing of that kind. It stood by mamma's side, and as I gazed took three steps, each accompanied by a heavy stamp, and stopping at every step. I was perfectly calm while taking in all these particulars, but after the third step I was overcome by terror, as the figure was coming round my side; and clasping my little sister, as if even her tiny form would yield me protection, I prayed that the Almighty would remove the vision, and cause mamma to wake. I only heard one step after that. After a few minutes I determined to tie a knot in my handkerchief, under the pillow, as I knew mamma would say in the morning it was all a dream. Just as I was about to do this she woke. I spoke to her, and taking courage looked at my watch, and found that it was about twenty minutes to six. I did not mention what I had seen till next day, or rather until it was light. I feel convinced that it was a forewarning of either my grandfather's or grandmother's death, as they have both been failing rapidly of late.

I forgot to mention one case that happened before the last, and which should have had the precedence. One morning, in March, 1858, I was giving a lesson at Miss M——'s school here, and, looking up, I saw a thin man in blue, cloth coat with turn-down velvet collar, standing by the side of my pupil. His figure was just like poor Mr. G——, the violinist. His face I could not see, as my pupil's head came between us. I was startled and screamed, thinking it was one of the masters at the first glance. I just had time to notice it when it vanished. I told mamma when I got home. Next day we heard that poor G—— had died at just about the time I saw his figure. I had not even heard that he was ill, and knew nothing of it till I was told he was dead.

Another case I forgot to mention, occurred, I think, some time in last November. I was aroused from my sleep by a loud knocking at my bed-head. After I woke I listened, and in a few minutes heard

it again. I said to mamma, "Do you hear that?"—"Hear what, child?"—"Why, that loud knocking." She said, "Why, I have been awake for more than a quarter of an hour, and there has not been a sound that I could hear." Afterwards I heard it again at the window. It was daylight, and I could see if there had been any one there; but I saw nothing. I told mamma I was sure we should hear of the death of some one we knew; and sure enough, a few weeks after we heard that my aunt's father had been found dead in his room, just about the time I heard the knocking. I was a favorite of his when he was living.

I can not remember any thing more now; I think I have mentioned every apparition that I have ever seen

ABSTRACT OF A PAPER BY DR. E. BILLOD ON A VARIETY OF PELLAGRA PECULIAR TO THE INSANE.

[*Translated from the Annales Médico-Psychologiques.*]

In what we have hitherto published on the subject of pellagra, it is important to distinguish between the announcement of a fact, and our opinion in regard to that fact. The *fact* referred to, is the occurrence, more or less frequent, among the asylum patients of Rennes and Angers, of an affection strongly analogous to pellagra. The *opinion* is, that this affection is that form of the disease which is peculiar to persons of disordered minds, and which we therefore call the *pellagra of insanity*. The pellagra of Lombardy, if a more decided, is a less important malady; and its occurrence elsewhere in hospitals for the insane, varies with their meteorologic and topographic conditions, and their differences of regimen.

We have described the symptoms, the progress, the duration, and the termination of this disease. We have given the prognosis and the diagnosis, its pathologic and etiologic anatomy. No one who has

seen the pellagra of Lombardy, can fail to perceive strong analogies between the two. We hope hereafter to present a more complete demonstration of this, after a thorough examination and comparison which we propose to make in Lombardy, itself.

[After some remarks on the number and character of his observations, and after naming several eminent collaborators whose attention he had called to the cases under his care, he states that in order to obtain a wider and fuller view of the subject, and especially that he might ascertain to what extent the development of this disease is dependent on particular hygienic conditions, he had proceeded to institute a sort of scientific inquest in regard to other establishments. It is the result of this inquiry, which he gives in the present article. His first report is from the Asylum of Maréville. With a complimentary and thankful acknowledgment to Dr. Auzouy, *médecin en chef* of that establishment, he relates the following cases received from him]:—

1. Lucien D., shoemaker, 24 years old, from Chénois-Auboncourt, (Ardennes,) entered Feb. 16, 1856.

A mind gradually enfeebled in consequence of epileptic attacks, which attacks have been getting more and more rare; at present, weak, emaciated, with almost constant diarrhoea; entirely demented; skin insensible, and on the back of the hands cracked, horny, parchment-like, especially in summer.

2. Augustin-Antoine C., silk-weaver, 49 years old, from Coûmes, (Moselle,) entered Sept. 3, 1850.

General debility, mental and physical; onanistic tendencies; want of spontaneity; works as much as his poor health allows; diarrhoea occasionally. Dementia; skin on back of the hands having the aspect of pellagra; growing weaker.

3. Evre François H., vine-dresser, 51 years old, from Govillers, (Meurthe,) entered Feb. 15, 1858.

Dementia; speaks with difficulty; almost a case of paraplegia; legs swollen; a general weakening of the system, morally and physically; diarrhoea at intervals. In May, (1858) symptoms of pellagra on the back of the hands and on the face, which lasted several months; cutaneous anesthesia.

4. Georges M., husbandman, 49 years old, from Plancher-Bas, (Upper Saone,) entered March 30, 1857.

At first a maniac, he became a complete wreck, losing his memory and his affections; works sometimes; is still troublesome; says he has been in the Asylum five years; (in fact 21 years;) shews both physical and moral insensibility; gives unmeaning answers; troubled with indigestion; skin on the back of his hands shriveled and scaly, and peels off, especially from May to July.

5. François-Adrien A., shoemaker, of Charleville, (Ardennes,) 46 years old, admitted Feb. 24, 1841.

Odd from boyhood; a fierce temper; melancholy increased by opposition; decided fancy for an idle and vagrant life; keeps his bed in consequence of a white swelling; calm and stupid; dementia; weakness, wets his bed; erythema on the back of his hands, very conspicuous in the summer; irrepressible diarrhœa.

6. Jean-Joseph B., weaver, 63 years old, from Gerbevillers, (Meurthe,) entered July 25, 1841.

Asthmatic; understanding gone; no memory; unable to work; health feeble; the heart affected; dementia; talks without knowledge of what he says; old and broken down, with bloated legs and frequent digestive troubles; during the whole summer the skin on the back of his hands was affected with erythema, which extended to his face. His skin still has a parchment look.

7. Louis François C., baker, 64 years old, of Paris, (Seine) entered April 8th, 1847.

Has still some thought, some memory, and remembers Paris with regret. Inactive, he never moves from a place till compelled; good health, but dementia complete; says the bad air of Maréville has made him sick; has loosened his teeth, and stripped off his hair. Weak and quiet, he does no work; in summer the backs of his hands look like parchment, and the skin peels off.

8. Jean Baptiste B., husbandman of the Bruyères, (Vosges) aged 58, came Sept. 30th, 1850.

At his entrance was in a state of mental torpor and extreme prostration. Has disease of the heart, with much oppression; formerly

raving, now tranquil, unless made irritable by heart-palpitations; keeps his bed always; legs swollen; dementia; calls himself a stone-breaker; has lost all intelligence and feeling; evidence of pellagra on back of hands, in May and June.

9. François P., musical-instrument maker, 37 years old, is from Mirecourt, (Vosges) entered Jan. 10th, 1849.

Limited intelligence, and inclined to melancholy; troubled with anticipations and fears of the future. Had some time since an attack of acute mania; stupid now, with base and onanistic instincts; the dementia complete; broken health; moral prostration; sores on little fingers, and troubled with trichiasis; pellagra on back of hands still visible, though less than in summer.

10. Martin G., husbandman, 60 years old, from Nancy, (Meurthe) entered (second time) June 15th, 1857.

Weak in intellect, with maniacal reactions; sometimes agitated, but not dangerous; the mania is chronic; unable to work; muscular system contracted, so that he walks with difficulty, and is awkward with his hands. He is sometimes loquacious—always incoherent; the dementia complete; frequent diarrhœa; insensibility of skin; back of hands like parchment, with a pearly lustre.

11. Louis Nicolas R., journeyman, aged 37 years, from Charmes-la-Côte, (Meurthe) entered May 5, 1852.

Epileptic; maniacal attacks in connection with that affection, followed by weakening of the mind. He rarely falls now; has become quiet, docile, and peaceable. He does no work; his skin is insensible; doubtful indications of pellagra on back of his hands.

12. F., is completely demented, and has been long an invalid. In May, 1858, the dorsal surface of both hands exhibited well-marked indications of the cutaneous affection called pellagra. Attacked by marasmus and diarrhœa, (colliquative) he died May 30.

To the account of the above cases Dr. Auzuoy adds the following reflections:—

“As the culture of maize hardly exists in Lorraine, none of the persons above named could have used that food. The particular

change which takes place in the pellagrous insane, and where the skin is most exposed to the action of the sun, seems to result from a general alteration of the cutaneous system, to which persons who are demented or much depressed by melancholy are subject. Perhaps this very symptom of a pellagrous condition is only the indication of anesthesia in the functions of the skin."

Although the above cases are not all equally marked, it is evident that, taken together, they strongly confirm the views which I have given on this subject. In a letter which I received from Dr. Auzuoy, soon after he took charge of the Maréville Asylum, he stated the fact that his pellagrous patients had been exposed to the sun, though in a less degree than the most of those who labored, no one of whom showed any trace of the disease. The insanity from pellagrous affections of those who are able to labor, as shown by M. Auzuoy, adds strength to what I said in my last memoir, in opposition to the notion that pellagra in the insane is owing to their working while exposed to the sun.

In regard to preventive measures, not forgetting the beneficial influence of labor on the general health of the insane, or how much we owe in this respect for his excellent suggestions to our dear and venerated master, M. Ferrus, I wish to call attention to one thing which has much to do with the case in hand. I refer now to the habit of the patient during his exposure to the sun, in regard to restlessness and inactivity. It is clear to me, and I have the authority also of M. Aubanel, that the insensibility, which often causes the insane to remain for hours perfectly motionless, aggravating as it does the natural tendencies of confinement, must contribute to the production of that erythematous condition, which seems to me to be pellagrous, because, like all the forms of pellagra, it is usually associated with some ill condition of the system. Let me here introduce a curious fact, which bears directly on this matter of activity and inaction. In April, 1857, an insane patient was transferred from the Salpêtrière to the Asylum of Sainte Gemmes. This man supposes himself to be turning a wheel, keeping up an incessant rotary movement of his right hand, varied only by the occasional projection

of his arm forward. This activity has not prevented the access, especially in the moving hand and under the influence of the sun, of well-marked pellagrous indications. At first view this case may seem an exception to the beneficial influence of exercise. But it is proper to state that the patient remains constantly in a squatting posture, and though his arm moves, his body, generally, is wholly inactive. Nor is this all. The hand which moves, being constantly exposed to the rays of the sun, is subjected to an influence which, as was well said by young Dr. Combes, resembles that of the kitchen-fire on the joint which turns before it.

THE ASYLUM AT FAINS.

I have received from Dr. Auzuoy the following description of three cases, which came under his notice while he was director at Fains:—

1. Auguste P., 37 years old, husbandman. Weakness of intellect; hypochondria. In the summer of 1856, showed on his face and the back of his hands very decided erythema; this went away in the winter, but re-appeared still more decidedly in May, 1857. The skin was cracked, and, in some places, peeled off. The patient suffered much from derangement of the nervous system, and of the digestive functions; gradually lost his strength; was attacked with serous diarrhœa, which would not yield, and died July 20, 1857.

2. Nicolas L., 62 years old, proprietor, from Ambly, (Meuse).

Suicidal lypemania. Has made several attempts on his life, which were frustrated. His disease has assumed the form of stupid lypemania. Erythema appears every summer on his face and hands. The epidermis comes away, as it would after a blister. He has periodical difficulties, such as indigestion, vomiting, aversion to food, and diarrhœa, alternating with constipation. His insensible skin feels nothing prick it, and is unconscious of setons.

3. H. has exhibited symptoms of pellagra. He is a demented patient, 65 years old, very weak, both physically and morally. Depressed in spirits; incommunicative; eats but little, and has frequent trouble in his digestive organs.

THE ASYLUM OF ST. ALBAN IN LOZERE, AND THE ASYLUM OF RODEZ IN
AVEYRON.

On the 2nd of last November, Dr. Renault du Mottey, who was successively the director of both establishments, wrote to me as follows:—

“ I can confidently assure you that there is not, and has never been, a case of pellagra, either primitive or consecutive, in the asylums of St. Alban and Rodez, nor has anything that resembles that disease been seen there. How this should be you will readily perceive, when I shall have given you certain details in regard to the hygienic condition of these asylums.

“ Both establishments are placed on mountains of considerable height, stand upon the solid rock, and have a healthy neighborhood. No rain-water stands on their steep slopes; no wells can be sunk there; and there are near them no natural streams. Their abundant supply of excellent water comes from a distance in aqueducts. They are open to every wind, with a cool and temperate climate, and an atmosphere almost always dry and bracing. Their hygienic arrangements of food, clothing, and sleeping, are of the right kind. The general state of health is excellent. Diarrhœa, so common among the insane, is rare, nor has any endemic malady ever prevailed in these asylums.

“ The St. Alban asylum stands upon granite, a thousand metres above the sea-level. There are many cases of goitre, but not one has ever originated here. When Bessières, in 1840, took charge of this asylum, he found it in bad condition, owing to previous mismanagement. The place was dirty; the food almost entirely vegetable; while instead of suitable beds, they had a sort of close boxes, in which they shut up the violent patients, in order to be rid of them. In a month's time Bessières had done away with this, and the establishment was restored to its normal condition of healthiness.

“ The Rodez establishment is more than 600 metres above the sea. Schistus, lime-stone, silex, &c., compose the ledge of rock on which it stands. In the latter part of summer, and during the autumn, every year since it was opened, it has been visited with an epidemic

dysentery, more or less fatal. It was believed that this disease was due to the unwholesome nature of the cistern-water. An aqueduct from a distance now supplies the establishment, and since its introduction, there has been no case of the disease."

If this letter of M. Renault adds no special confirmation of my views, neither does it detract from their soundness. It proves only, that those hygienic conditions, which often act as a determining cause in the production of pellagrous affections, do not exist in the favored asylums of St. Alban and Rodez. Of such affections mental alienation is only the predisposing cause, and it is a cause which may be counteracted and neutralized by the right hygienic arrangements and conditions.

[After alluding in terms highly complimentary to the treatise of M. Roussel on Pellagra, Dr. Billod refers particularly to the opinion therein expressed, and generally adopted by the profession, since the publication of that work, that pellagra is attributable to the use of maize, whether altered or not by the *verderame*. Dr. B. expresses his conviction that the general adoption of this theory had prevented the formation of right opinions on the subject. So long as it was supposed that pellagra was due only to the use of maize, the disease, when it occurred in conditions where no maize was found, failed to be duly recognized and properly treated. It is, therefore, with much satisfaction that Dr. B., is now able to announce, on the authority of his friend Renault, that M. Roussel no longer believes in maize as the sole and absolute cause of pellagra. Hardly, however, had he recorded this agreeable fact, when he received a call from the honorable Monsieur le docteur Costallat (de Bagnères de Bigorre). This worthy man is still a firm believer in the maize-doctrine to its full extent, and holds that the maize ought always to be well roasted before use, in order to destroy the animalcules that do the mischief. Well, Dr. Costallat has a letter, quite recent, from M. Roussel, in which the latter gentleman affirms that he has not changed his opinions in regard to the etiology of pellagra. Certainly this must be considered rather unsatisfactory. Dr. Billod, however, makes the best of it. He thinks that the difference between M. Roussel's statement, two

years ago, to M. Renault, and his recent declaration to M. Costallat, is not so much a real as a seeming one. He thinks that M. Roussel still believes that maize, when injured, is a cause of pellagra, but not that it is the only cause. In case M. Roussel finds fault with this representation of his opinions, Dr. B. is ready to correct it.

But how does Dr. Costallat, who holds to the maize-doctrine, get over the fact that pellagra exists in establishments, where the use of maize is wholly unknown? He acknowledges that an affection exceedingly like pellagra has appeared in asylums whose inmates were innocent of maize and its animalcules. But this being the case, it could not be pellagra; it was simply some other disease.

TRIAL OF GEORGE HAMMOND, INDICTED FOR THE
MURDER OF JOSHUA WORLEY, BEFORE THE FAYETTE
CIRCUIT COURT, HELD AT LEXINGTON, KY., MARCH
3, 1857.

The following is from the minutes of the trial. The murderous assault occurred on the evening of Dec. 24th, 1858. The following day, Hammond was arrested, and, after a preliminary examination, was held for murder, and the plea of insanity put in as a defence.

George Hammond, the prisoner, was an unmarried man, 35 years of age, a wagon-maker by trade. He boarded with Joshua Worley, the deceased, who was also a single man, and whose mother lived with him. He had five negro servants in the house, one woman and four men. At the time of the murder there were no whites in the house but the parties.

About three o'clock on the afternoon of Dec. 24th, 1858, W. Bosworth, a neighbor and friend of Worley's, visited him at his house. About half an hour after his arrival, Hammond came from his shop, about one hundred yards distant, went directly to Worley's room, remained there a few moments, then passed into an adjoining room,

where Worley and Bosworth were seated. He asked Bosworth for tobacco; said he did not know he was out of tobacco, and seemed "apparently not in as good humor as usual," and soon left the room. Bosworth remained until about sundown, and when he left Worley was dressing to attend a Christmas party at his brother's, to which Hammond also had an invitation. William Perkins, a neighbor, went to the house about six o'clock, to invite Worley to supper. It was fairly dark when he arrived. As he approached the house he saw a man going towards Hammond's shop. On entering the house, he was informed of the fact that Worley was injured, and on going to his room found him lying on the bed. He asked Perkins who he was, and made an indistinct reply to the inquiry as to whether he was much hurt; the inquiry was repeated, but no reply made. Two negro women were in the house. One of them threw a stick of wood on the fire, from the floor, which the other took off. It had blood on it, and the witness put it aside in the room. He did not see Hammond in the house. Made up a fire and left, and about seventy or eighty yards from the house met W. Spencer, going to Worley's, the negroes having by this time given a general alarm to the neighborhood. Spencer found Worley "rather stupid," though he greeted him with, "That you Spencer?" and to the question, "Are you much hurt?" answered, "Yes;" and complained of feeling cold, and of sickness of stomach. H. Worley, a brother, arrived some fifteen minutes later, and subsequently others. He was still conscious, recognized his brother, and repeated the complaint of feeling cold. His brother found him covered with blood, and having two wounds upon his head, and observed that he had partly dressed, having on a clean shirt. He made certain motions which were understood as requesting silence, and no questions were asked as to how the injuries were inflicted or by whom. The physician, Dr. Halstead, arrived about ten o'clock, and found him "insensible, sinking rapidly; two wounds on his head from a dull instrument—one on the top of the head, rather back than front, the other on the left side of the head, and the skull fractured." He died during the night.

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Hammond staid that night with James Farrar, a cousin. There is no evidence going to show that he was aware of the extent of the injuries inflicted. He in the morning requested Farrar to get his clothes and horse, still at Worley's. He was arrested in the morning and taken to jail. We have no minutes or account of the preliminary examination when he was indicted.

ABSTRACT OF THE TESTIMONY BEARING UPON THE QUESTION OF THE
INSANITY OF THE PRISONER.—BY THE COMMONWEALTH.

W. Bosworth : Was an intimate friend of the deceased ; had known the prisoner two years ; knew of no disputes or difficulties between them ; never saw the prisoner at the house except at meal times ; was particular in his dress when at church, or anywhere out of his shop ; was a wood-workman in his own shop ; kept his own books ; managed his business well ; was a money-lender ; noticed no change in his conduct recently, or difference in his mind.

On *cross-examination*, said prisoner was peculiar—a subject of remark ; boys went to his shop to plague him about the girls ; generally remarked to be different from other men ; would always stop work if any one came up behind him ; would under such circumstances stand and whittle, or look round between each blow or movement of the tool he might be working with ; was very suspicious and timid ; temper mild ; don't know about his unwillingness to drink water from the blacksmith's.

Wm. Perkins testified, that he had known the prisoner a year ; that prisoner had worked for him, and that he was a good workman ; that he had seen him only in his shop on business ; that he always talked sensibly in trading, and seemed like a person who knew right from wrong ; that he had singular ways ; always watched witness closely when in his shop.

Cross-examined : Live on the opposite side of the road, and about a quarter of a mile off ; have had but little to do with prisoner ; have thought him a curious man, and different from other men ; went to the jail to see him about an account I owed him, and he was suspicious as before, and gave me no satisfaction, but turned and left me.

Geo. Spencer testified, that he had known the prisoner for ten years ; that he was a first-rate workman, and had done a good deal of work for him ; that he was a prudent business man ; kept his own accounts ; knew him when he formerly lived in the neighborhood.

Cross-examined : Knew prisoner when he lived at Valentine's, five years ago ; he then disappeared, and search was made for him ; he was, however, absent for some time ; he was a peaceable, quiet man, but had peculiar ways ; have heard him say that persons were seeking his injury ; he thought Worley and the boys were trying to injure him ; I never thought there was reason for such suspicions ; have heard him speak of Davis as a dishonorable man ; he wanted to come and board at my house, and get another shop ; don't know that everybody thought him crazy ; have heard it said of him ; Worley was putting up a blacksmith-shop near prisoner's shop, but such a building would not interfere with or injure a wagon-shop.

H. Worley testified, that he was a brother of deceased ; that he had known the prisoner five or six years ; had work done by him ; that prisoner was on friendly terms with deceased, and boarded with him ; that the arrangement in regard to boarding was to terminate on the first of January, and that prisoner had talked with witness on the subject ; thought he was vexed at deceased for building a new shop.

Cross-examined : Have known prisoner a long time ; boys often plagued him about the girls ; don't know that he has peculiar views about prisoner ; he has that peculiarity of watching persons behind him while he is working ; he is an eccentric man, inoffensive ; never knew a man of like peculiarities ; he has spoken of Davis, with whom he formerly lived, as dishonorable, and as having tried to injure him with others ; can't say that he accused Davis of trying to poison him ; Farrar spoke to me of his habit of self-pollution, and on this account I thought my brother ought not to have him about him ; never thought prisoner was a lunatic, and never told Farrar so ; he was close, conducted his business prudently ; didn't work constantly ; neighbors did not hesitate to trade with him ; I applied to him for a

loan of money, and offered security, and he said he wanted no security, as he only loaned to good men; he never offended me; the first intimation of his lunacy was the statement of Farrar in regard to his self-pollution; my brother would not board prisoner longer, because he was about to move to mother's place.

James Farrar testified, that he was a cousin of prisoner; lived three-fourths of a mile off; that prisoner came to his house Christmas eve, about half-past six o'clock, and staid all night; was not invited; had on working clothes; never staid with him before; went in the morning with boy for prisoner's clothes and horse, and afterwards went with men to arrest him.

Cross-examined: [Questions as to whether prisoner made a statement, and if so what, ruled out.] Have known prisoner fifteen years; often at his shop; he had peculiar ways; looked round from his work when persons were there, or would begin to whittle; did so often; told me Davis drugged his food, and that deceased did the same, and it made him throw up his coffee; no personal knowledge about his self-pollution; don't remember how long before homicide prisoner told me of deceased drugging him, probably three or four months ago; have heard him express hostility to Davis; spoke of Worley drugging him in his own shop, and said it made him throw up his food; the conversation was private; prisoner calm, not enraged; he has not accumulated much money; a good mechanic; money-lender; kept his own books; can't say he charged as others do; last six months charged with pencil on a couple of planed boards; don't think he transcribed them into books; think him conscientious, and that he knows it wrong to lie; he is of mild temper, but suspicious; he kept the boards in his trunk; had an unloaded pistol in a box.

Wm. Carter testified, on direct examination, to facts touching homicide.

On *cross-examination* said, he had known prisoner two years; that he was a remarkably quiet but a suspicious man, and different from others; heard, sometime before Christmas, that he slept with his clothes on; would not like to sleep in a room with him; heard others say that he thought himself drugged.

TESTIMONY BY DEFENDANT.

Judge Graves testified, that he had known the prisoner 10 or 12 years ; that he had lived at his house parts of 1855, '56, and '57,—in all sixteen months ; that he was a quiet, timid, inoffensive man ; that he had observed peculiarities in him before 1855 ; in his shop he would strike a blow with a tool, then turn round and look at the persons present. On two occasions while being with him he showed a disposition to resent supposed injuries. He once pursued a negro girl with a stick and adze, declaring that the girl put something in his milk while waiting on him at table. At another time he pursued a negro boy with an axe, saying the boy looked in his window, and meant some harm to him. He also had difficulties with Rice, the overseer. Once when Rice came in with the corn-knives and laid them down, prisoner wanted to know whether or not he intended to attack him ; and the following night prisoner slept with a broadaxe under his head. Some days after, said he intended no harm to Rice. Said he left Dr. Penney's because Penney wanted to poison him in the water at shop, and didn't succeed because he wouldn't let them in, or threw the water out ; also said he put it in milk and coffee. Never knew him to drink water except in his shop or room ; would hand me water, but if I helped myself would make excuse to empty bucket. He suspected every body. At persons conversing in sight of his shop he would become uneasy, and want to know what they were saying about him ; thought him monomaniac about his friends ; never gave him cause to suspect me, and thought I had escaped his suspicions ; he was often invited, but never sat with the family.

Cross-examined : Knew him at Dr. Penney's, where first noticed his peculiarities ; he was not susceptible of being reasoned with ; couldn't convince him about negro boy and girl ; thought he was to be met by resolution ; no illusions except those mentioned ; knew it would be wrong to violate law ; could direct him by talking ; saw him while at Worley's ; same always in manner ; sane in trading ; managed his own business ; avoided women ; never approached any one in conversation ; a first-rate workman.

Re-examined : Peaceable ; do not think he would injure any one without apprehension of injury from them.

John Elliston : Went to Graves' as overseer, in fall of 1856 ; prisoner there ; not right ; got up at night ; said people about Graves' came home and called negroes to take his horse ; prisoner jumped up, said Graves was a damned old coon, and was putting negroes up to trap or injure him. I went to shop to grind knives ; prisoner said I came to stick him ; told him no ; he seized hand-axe and walked around the shop ; told him to put it down ; he followed me out with a stick ; drove him back with a stone ; didn't sleep in room with him much after that ; he wouldn't work when I was in his shop ; would look up when working ; wouldn't let any one come behind him ; told me about Dr. Penney trying to poison him ; was worse at times than others.

Cross-examined : Couldn't send negroes to his shop ; he got after them ; he left soon after Christmas ; I wasn't long with him ; he never made difficulty with me after knife scene ; never left home on week-day ; almost always at shop ; never joked him much ; he brought an axe in his room one night, and put it under his bed ; he thought I went to his shop for his injury.

John Allen : Knew prisoner before he was grown ; was a peaceable, quiet, and timid boy, perfectly inoffensive ; the first thing that excited my suspicion was in connection with Elmore ; I went to prisoner's shop ; Elmore was at blacksmith-shop ; prisoner wanted to know what Elmore was saying about him ; said he didn't like him ; said he wouldn't work for him ; no reason ; said several of them had grudges against him. Afterwards Ferguson spoke of a singular theft of a haystack ; prisoner jumped up and said he couldn't lay it on him ; he could prove he bought and paid for his hay. Ferguson said in some countries this sort of denial would throw suspicion on him ; this seemed to prey on his mind ; refused to work for Ferguson after this ; Ferguson explained that he only jested, and he then worked for him ; wanted to board with me, and work in my mill, and said his reason for leaving Penney was fear of poison—couldn't be mistaken ; next morning said he was wrong, and felt better to

day ; he went to Graves' soon after this. His mind was affected by his health ; he worked when right—not when wrong ; I thought him insane at that time ; he is temperate, and member of Baptist church ; is perfectly inoffensive, except when under delusions ; was different from other boys when learning his trade.

Cross-examined : Didn't have spells when not complaining ; thought him rational when he retracted about Penney ; he knows right from wrong ; not good self-control when he jumped up about haystack ; never saw any thing that indicated he had no control of conduct ; talked rationally at all times, except so far as unfounded suspicions were concerned. All this was while he was at Penney's ; never talked with him afterwards ; he was timid ; I didn't think he would attack one except on suspicion.

Dr. Penney : Have known prisoner since spring of 1854 ; staid at my house till May, 1855 ; was peaceable, still, harmless ; a remarkably timid man ; very watchful and suspicious ; never drank water in the house ; drew for himself ; had delusions about me, Ferguson, Elmore, and others ; asked if Ferguson, Elmore, and myself had not conspired against him ; his conclusion about haystack was irrational ; he didn't like Elmore ; got up one night and came into my room, my wife and I there ; said he wanted a candle to see if my boys were trying to steal his horse ; was highly excited ; went out leaving candle, and the door open ; went to gate and stood sometime ; didn't look for the horse ; returned, not closing the door ; horse was in the mule-pound, and he had the key ; didn't work much in his spells ; moped, and was short and harsh ; complained of feeling unwell ; got him to take a pill ; thought he would die of apprehension ; asked me if I had not poisoned him ; took much pains to make him easy ; gave him use of shop without charge ; from expression, complexion and manner thought him an onanist ; thought him harmless, and had no hesitation in leaving him with my family ; spells grew frequent and worse.

Cross-examined : Illusions periodical ; sometimes complained of ill health ; then did little work ; don't think he knew right from wrong in the hay-stack matter, or about horse ; entered my

room without warning ; don't know that he would have known that it was wrong to slay me ; saw him twice last year ; once in Versailles, in May or June ; nothing wrong then. Onanism produces both dementia and mania.

Dr. Hurst : Have known prisoner 10 or 12 years ; just before he went to Dr. Penney's, said persons in the neighborhood had designs on his money or his life ; when he named the men I knew he labored under delusions as to that.

Johnson Sellers : Live near Dr. Penny ; conversed with prisoner ; he complained of being unwell, but said he wouldn't take medicine of Dr. Penney, who wished to poison him ; have frequently noticed his habit of quitting work, and whittling, when persons were near him ; he said they were talking about him ; told him he was mistaken ; he appeared satisfied ; wouldn't let any one approach him from behind ; said he had enemies there, and wouldn't stay there ; he would fly from one subject to another.

Richard Ferguson ; Have known prisoner from boy ; saw him at Penney's, and the singular conduct about the stealing of hay-stack. I laughed and said, " Guilty conscience," etc. ; didn't accuse him ; he wouldn't work for me until I explained, and he appeared satisfied ; observed him afterwards, and was satisfied he was not right ; tried him by going behind him, and found him watchful and suspicious.

Cross-examined : He had the same suspicious look when from home ; same everywhere ; would look at you and turn away ; there was a peculiar glare about his eyes.

John Jones : Keep tavern, 33 miles on Covington pike ; prisoner was at my house five years ago ; came there in the evening ; a young man had a fit there, and prisoner left the house without his horse, and spent the night in a straw-pen ; was brought back next morning by some of the neighbors who supposed he might have stolen something ; we fixed up a jury and tried him ; thought him insane ; neighbors live some four miles off ; have to cross a creek three or four times between them and my house ; I had no doubt of his insanity ; he said he left because he thought he was to be murdered ; thought from his manner and talk he was insane ; my wife

thought him crazy ; he asked if he could have a private room ; he examined the windows ; said he was going to Indiana ; told my wife he was going down the Ohio river ; Hughes and Lancaster brought him back ; he returned the same or next day after leaving my house ; he spoke of having worked near Lexington.

Cross-examined : Don't know how these facts were known ; had a room by himself ; a young man had a fit in room a few doors from his ; he made considerable noise ; thought prisoner crazy or drunk ; those who brought him back said they knew something was wrong about him ; thought he had stolen something, and he did not deny it ; his manner, look and conduct convinced me that he was crazy.

Mr. Lancaster : Live in Scott Co. ; prisoner came to my house four or five years ago ; wanted breakfast ; said he was very hungry ; while eating Hughes came in, and asked if any one had passed ; then in the house ; said he had slept in straw-pen ; we examined him ; he said he had put up at Jones', and stepped off pike, and got lost. Some one remarked, " Mr. Nelson is coming ;" prisoner rose quickly from table, and asked that his horse might be sent for ; I told him he must go back ; he asked to speak to me privately, and proposed to marry my daughter, whom he had never seen before ; I deprived him of his arms, a dirk and revolver ; he offered to give us his horse, a very fine one, to release him ; he couldn't tell much about his neighbors ; I believed him crazy ; returned his arms ; told him to go home, and not leave without a friend ; that if he was honest and came that way, call and see me ; he could then tell more about his neighbors ; he drank one cup of coffee ; had another poured out, stopped, and rose suddenly when some one said, " Mr. Nelson is coming ;" saw him in jail ; he told me he lay in pen ; he didn't tell me he was crazy.

Cross-examined : He said he heard a noise, stepped off the pike, and got lost ; I suspected him ; he offered his horse to be released ; his appearance and actions led me to think him crazy ; he was either a lunatic, or appeared to be one.

Dr. Penney : Prisoner saw me moulding bullets ; he became

alarmed ; as I looked through his window he dodged back ; as I entered from hunting one day, he ran and hid himself ; he watched through his window, and dodged from it ; I was very particular not to frighten or annoy him.

E. Arnott : Knew prisoner from '44 to '48 ; saw a good deal of him ; thought him crazy ; marked change in him from '44 to '48 ; Dunlap and I talked with him, October, '48 ; I then said he must be crazy ; no one told me he was crazy ; I believed it from his appearance and conversation.

John Davis : Have known prisoner six or eight years ; he lived with me in '57 ; was eccentric, jealous, suspicious ; he thought Valentine tried to take advantage of him, and to keep him from getting married ; would go into vacant room over mine ; one night burst into room where my wife and self were in bed ; said he had ear-ache, and wanted sweet oil ; the bolt, pretty strong, was burst off ; thought him crazy ; he apologized next morning ; he was in vacant room, listening and watching ; his watch fell on the floor ; he ran and jumped in bed, with his clothes on ; more suspicious at times than others, when spells were on him ; talked of people trying to injure him ; wouldn't take a dram when the spells were on him ; I treated him kindly ; took no rent for shop ; the first I noticed he ran a negro from his shop ; wouldn't work when any person was in the shop ; watched always ; he thought persons talked about him ; I thought him insane.

Cross-examined : He was deranged when he burst into my room, and when he ran the negro without cause ; I was not present when he ran the negro ; he said he would satisfy me for the negro's time ; he carried on his own business ; was a close trader ; he bored holes through the floor above my room ; he didn't know right from wrong ; broke in my room but once ; his appearance and manner indicated to me he was insane at that time.

Dr. McMillan : Have known prisoner since '53 ; he often asked me for tobacco ; bought some for him ; told him I got it at drug-store ; he refused to use it ; asked me to prescribe for him ; asked if a man could be poisoned slowly ; said Davis put poison in his

coffee, to destroy his manhood ; I advised him to marry, and told Farrar I would not be surprised if he was an onanist ; first heard of his onanism in talking with Worley ; he abused Castleman and Valentine ; said some one tried to get into his room at Valentine's, and tried to swindle him ; that they had hired the negro to kill him ; he was mistaken ; it was not insanity in my opinion ; he was deluded about Davis ; it was an insane delusion ; he evidently believed Davis had conspired against him.

Cross-examined : Onanism destroys virility ; negro was to get his money, if he had to kill him ; observed no marked difference in mind ; knew right from wrong ; I first knew him in '53 ; he never told me he was guilty of onanism ; was intimate with Worley ; slept with prisoner there ; saw prisoner at work two weeks before the homicide ; chewed my tobacco ; he drank water at blacksmith-shop ; ice kept in it there ; he assumed false facts, and reasoned from them as if true ; he didn't know right from wrong ; he told a lie believing it to be true.

A. Hammond : Have seen little of my brother for ten or fifteen years ; about five years ago he left Valentine's, and went to Scott ; thought him crazy.

Cross-examined : Came back from Scott to my house ; told me about his alarm at Jones'.

B. C. Blencoe : Jailor ; examined two of prisoner's shirts yesterday ; they were soiled, indicating onanism ; he has peculiar manners ; steps backward as if he had been doing something wrong.

To a Juror : Prisoner was peculiar ; would let no one get behind him ; went backwards into cell in jail ; I think his mind was unsound.

Dr. W. S. Chipley : Am Superintendent of the Lunatic Asylum in this city ; have been for four years, nearly, thus connected ; my attention has been directed especially to the subject of insanity ; successful attention to business is not incompatible with some phases of insanity ; I have good workmen of all classes at work under my charge ; the effects of onanism are various ; masturbators become timid, suspicious, fearful ; the memory fails ; it often results in de-

mentia ; some alternate between fits of stupidity and excitement ; at times they are silent and moody, at others loquacious ; they are subject to delusions ; are often the subjects of apprehension, and violent on sudden impulse ; masturbation renders some persons impotent, when the mind would appear to be little, or, to common observation, not at all affected ; have known epilepsy to result from masturbation ; have heard all the testimony in this case ; if the testimony be true, it is my opinion the prisoner is of unsound mind. His delusions through a long series of years in regard to every one he lived with ; his unusual suspicions ; constant apprehension of poison or violence at the hands of white and black ; the scenes about the haystack, at Jones' tavern, &c., impress this opinion on me. It is confirmed by presence of ample cause, if the testimony proves him a masturbator ; also by his appearance in court,—vacant, thoughtless, sallow countenance ; have watched him closely ; he has seemed to take less interest in this cause than any one I have observed here. When his eye rests for a moment on an object he has the appearance of not thinking of it ; insane persons not unfrequently apologize after a brief fit of violence ; have seen cases illustrative of this ; masturbation often renders persons suspicious and distrustful of their best friends ; it is difficult to say what percentage of insanity is produced by this vice ; it is estimated by some at 12 or 15 per cent. ; it produces insanity with some, and is sometimes the result of insanity.

Cross-examined : Premising that the classification of insanity is very imperfect, and that it is not always easy to place a case, I put this case as one of dementia ; my opinion rests upon the whole testimony ; no one circumstance would have satisfied me ; any one of them might exist without being sufficient proof of unsound mind ; I think the mind affected in all cases where this vice has been long practised, but sometimes it is not generally recognized by acquaintances ; have treated persons for physical results, as impotency, whose friends never suspected mental unsoundness ; it was apparent to me in some form, as in loss of memory ; assuming the testimony to be true, it is my opinion his mind has not been sound for some years ; all that can be said is that his delusions were more apparent some-

times than others; he may have known right from wrong—that it was wrong to kill—and yet have thought the circumstances justified the act; most lunatics preserve memory, and have sense of right and wrong; this is illustrated in cases where the particulars of the wildest moments of excitement have been related after recovery; can't say how an insane man will reason from his delusions,—certainly not always correctly; bad logic is common to the sane and insane; can not always trace connection between delusion and act; the circumstances of the killing have not been brought out in the trial, and I can not form an opinion, even, as to the motive; there may have been sudden impulse or phrensy, or delusion that Worley was about to do him some bodily harm; this is a mere guess; delusions not always manifest—often carefully concealed; think prisoner a dangerous man to be at large, if the testimony be true that he constantly indulges the idea that those about him are seeking to inflict a deadly injury; can't tell when his feelings may explode in violence; if he acted under a delusion—a belief in what did not really exist, caused by disease—he was in my opinion irresponsible.

Re-examined: Was consulted day before trial by Mr. Hunt; gave as my opinion, founded on what I had heard of the testimony at the examining trial, that prisoner was a masturbator, and had been for years; and if so he was now probably the subject of involuntary discharges; and if so evidence might be found on his linen; this I presume caused the examination of his linen; I had then never seen the prisoner; my opinion was strengthened when I saw him, and it was confirmed by the testimony.

REBUTTING TESTIMONY.

Walker: Lived with Worley; saw prisoner frequently; never heard him complain of Worley's trying to poison him; saw him draw off accounts from boards; saw no change in him during week preceding the killing.

Berryman: Left Worley in October; prisoner was peculiar in his manner and suspicious; he drank out of the same buckets as oth-

ers ; never refused to eat with the family ; I thought him sane, but singular.

Cross-examined : Have heard him speak of Davis trying to poison him ; he didn't like the Worleys' putting up at Davis' stable ; he was singular and eccentric ; he was conscious of right and wrong ; I believe he thought Davis tried to poison him ; I don't think he did try ; he wouldn't let persons get behind him.

Capt. Gerrard : Have known prisoner several years ; he lived with me in 1855 ; was a singular man ; was curious at table in looking round ; wouldn't ask for anything at table ; going away, would look around ; didn't think him deranged, but singular ; had little conversation with him ; he worked well.

Robert Allen : Have known prisoner long time ; he is a distant, singular, eccentric man ; he did business well ; was sane, but there was something wrong.

Stevenson : Have known prisoner twelve or thirteen years ; he behaved quietly ; was a good workman ; had no delusions ; mind was not deranged ; saw him at Worley's.

Cross-examined : Was a quiet, peaceable man ; I have gone behind him in his shop.

Dr. Wasson : Have known prisoner fifteen years ; have had but very slight intercourse with him ; have seen no evidences of insanity ; was at work for me ten days before the homicide ; had no talk with him.

Franklin : Have known prisoner since '51 ; was in the neighborhood part of '54 ; he was eccentric, watchful, suspicious ; clever, civil, reserved ; spoke well of deceased ; was singular, but not insane.

Elmore : Am not intimately acquainted with prisoner ; saw him frequently at Worley's ; all our talk was about work ; he was singular, but not insane ; knew right from wrong.

The parties agreed to submit the case to the jury without argument. Each submitted instructions which they asked the Court to give to the jury. After elaborate argument the following were given, and the jury retired :—

PLAINTIFF'S INSTRUCTIONS.

1. If the jury believe from the evidence that Hammond, the prisoner at the bar, inflicted a wound or wounds on the head of Joshua Worley, with a stick or other similar weapon, of which he afterwards, and before the indictment was returned by the Grand Jury, died, they ought to find Hammond guilty of murder; unless they are clearly satisfied from the evidence that, at the time he inflicted the blows, he had not sufficient reason to know that he was doing wrong, and would be liable to punishment, or that he had not sufficient power to control his actions, and refrain from killing him.

2. If they believe the prisoner killed Worley, although they may believe from the evidence that the prisoner had insane delusions that Joshua Worley, and others, had attempted or intended to attempt to poison him, yet if they believe from the evidence that he knew it was wrong to kill for that cause Worley, and had sufficient power of control to govern his actions and refrain from committing the homicide, then the law is against the prisoner, and they ought to find him guilty.

3. The law presumes every man sane until the contrary is clearly proved.

DEFENDANT'S INSTRUCTIONS.

1. The burden of proof is upon the Commonwealth to establish beyond a reasonable doubt that Hammond killed Worley; and, though circumstantial evidence alone may authorize a conviction, yet it must be of a character so strong as to exclude every reasonable possibility of the innocence of the accused, and each of the circumstances upon which the conclusion of guilt rests must be proved to the satisfaction of the jury, beyond a reasonable doubt.

2. If the jury find from the evidence, in the mode stated in the first instruction, that Hammond killed Worley, but are also satisfied that when he did so, though he was sane on some subjects and for some purposes, yet, that by reason of insanity he did not know that the act was unlawful and wrong, or he acted under an uncontrollable though temporary phrenzy, they must acquit him.

3. If they are satisfied that, at the time Worley was killed, Hammond was totally or partially insane, and struck the fatal blows under an insane delusion as to the conduct or purposes of Worley, and in the belief that he was justified in law and conscience in doing so, they must acquit him.

4. If the jury, upon all the evidence, have a reasonable doubt of the defendant's guilt of killing Worley, they must acquit him.

If the jury acquit the prisoner on the ground of his insanity, they must state that fact in their verdict, that he may thereupon be sent to the Lunatic Asylum.

After a short absence, the jury returned with a verdict of, "Not guilty, by reason of insanity." The prisoner was ordered to the Lunatic Asylum.

SANGUINEOUS TUMORS OF THE PAVILION OF THE EAR
IN THE INSANE. READ BEFORE THE MEDICO-PSYCHOLOGICAL
SOCIETY OF PARIS, JUNE 27TH, 1859, BY DR. ACHILLE FOVILLE.

[*Translated from the Annales Médico-Psychologiques, July, 1859.*]

In asylums for the insane, it is not unfrequent to find among the patients, those in whom the external pavilion of the ear is the seat of a fluctuating tumor, of a deep red color, more or less voluminous, and often rapid in its development. When one of these tumors is untouched it remains stationary for a long time, then after a duration of several months it disappears, and the skin does not pass through those variations of color which are the ordinary result of effusion of blood into the sub-cutaneous cellular tissue. The ear, instead of returning to its normal condition, manifests in shape and thickness modifications varying in accordance with the size and extent of the tumor. The superior portion of the pavilion, often

curiously shriveled, and thickened at the same time by hard and unequal lumps, where the tumor has been considerable, may, in the contrary case, retain only a few thick and indurated kernels, without any alteration in the general form of the organ. The invariable location of this affection is the external face of the cartilaginous part of the pavilion; the lobe always remains intact, both during and after the disease. Sometimes one ear only is affected, sometimes both, and then most frequently they are not attacked together, but successively.

Ancient writers have not mentioned these tumors. They were first remarked upon in our century. M. Ferrus, in France, in 1838, described them in his lectures at Bicêtre. In 1842, M. Belhomme presented an example to the Medical Society of Paris, and the same year M. Cossy, house-surgeon at Bicêtre, published a very forcible paper on this subject, and, what was of great importance, containing a most minutely-detailed autopsy; since then MM. Thore, Lunier, Renaudin, have treated of this disease at several different times, in the *Annales Médico-Psychologiques*. In 1853, a physician in the Hospital at Charenton, M. Merland, made it the subject of his inaugural dissertation. Several months ago, M. Marcé presented a very curious case, and still more recently, M. Delasiauve has published, in the *Gazette Hebdomadaire*, two excellent articles giving a *résumé* of scientific knowledge in regard to this disease, and mentioning the publication of six new facts by M. Petit, physician to the asylum at Nantes.

In Germany, physicians to the insane have advanced in this respect beyond their French brethren. In 1833, Bird, second physician of the asylum at Siegburg, published a valuable paper on these tumors; since, several authors have given them their attention, among others, Dallas, Rupp, Leubuscher and Fisher.

In England, Conolly described them long ago, and Dr. Stiff has commented upon several cases. M. Verga, of Milan, has also spoken of them.

Although this species of tumor is more frequently observed in the insane, it is not exclusively confined to this class of patients. The

thesis of M. Bastien, (*Thèses de Paris*, 1855,) contains a very remarkable case of one in a young man, who presented unequivocal symptoms of hysteria. M. Wilde has mentioned an example of one, developed without apparent cause in a young printer, (*Medical Times*, 1852). Professor Jarjavay has seen several cases of these tumors in professed wrestlers (*Anatomie Chirurgicale*, p. 522); and M. Mallez, (*Thèses of* 1855), has added two cases of young scholars who were two months under the tuition of an instructor, too great an advocate of physical repression.

The conclusion to be drawn from the perusal of these different works is, that sanguineous tumors of the ear constitute a disease, the external appearance of which and the symptoms are at the present day recognized by all physicians to the insane, but in other respects little understood, and giving rise to many contradictory opinions.

It has seemed to me that, from the attentive study of the normal and pathological anatomy of the ear, and of the symptoms noted, on the one side, and of various physiological facts science has already acquired on the other, it was possible to dissipate in a measure these contradictions and obscurities, and to throw a certain light upon the causes, precise location, and nature of this affection. This I have attempted in this work. I shall be happy if I can contribute towards proving how much pathology gains by calling to its aid exact anatomical and physiological knowledge; how far facts, which, considered separately, appear whimsical and unintelligible, thanks to this concurrence become simple, and easy to comprehend. This article is especially devoted to sanguineous tumors as observed in the insane; and if I have occasion to speak of those which supervene in persons not insane I shall indicate them particularly.

I.

These tumors, relatively common in men, are very rare in women. All authors agree that, with a few exceptional cases, they only appear in incurable patients, or at least signify the passing of their disease from the acute to the chronic stage. It was at one time believed that they appertained exclusively to general paralysis, but it has since

been shown that they are found equally in other forms of chronic alienation. This is very nearly all that is known of the conditions under which they are produced. In reading the published observations, we are struck by seeing how very frequently the tumor is mentioned as already formed, or in the formative process, without any query as to the previous state of the ears.

However, in cases where anything is said, the ears are described as being, a little before the appearance of the tumor, red, hot, and shining. This is an important fact to note, and one almost general; the blood is still sustained in its vessels, but the ear is the seat of considerable turgescence. Bird, the first author who had pointed out this affection, had already remarked this fact, since wholly neglected by others. "When the disease is coming on," he says, "I have remarked that both ears, or one of them are hot, red and swollen. Gradually the ear becomes hotter, redder, almost blue; the patient appears to suffer, for he manifests great sensitiveness if it is touched; then the tumor, one day scarcely commenced, is the next already of considerable size."

This writer has endeavored to draw attention not alone to the local condition of the ears, but also to the active state of circulation in the entire head. "Of the six patients under his observation," he adds, "five suffered very active sanguineous congestions in the head, such as are only manifested in the insane with so much frequency and persistence. The pulsations of the carotids seemed, upon a superficial touch, much stronger than those of the radials; in all the head was extraordinarily hot."

I deem it of great importance to insist upon this general character of the cephalic circulation, because of the strong traits of resemblance between this condition and that which supervenes in animals upon the section of the great sympathetic of the neck, or the ablation of the superior cervical ganglion, as has been discovered by M. Cl. Bernard, and confirmed by many other talented experimenters. M. Bernard thus describes this state, (*Leçons sur le système nerveux*, tom. 2, leçon 15.): "It immediately produces great increase of heat, (from 6 to 7 degrees,) and very strong vascular turgescence in the

ear and corresponding side of the head. The circulation is active, and the arteries seem to pulsate with much force. At the same time there is perceptible augmentation in sensitiveness. This elevation of heat, which can be superficially appreciated, extends equally to the internal parts, and even into the cranial cavity and cerebral substance. The blood coming from these heated parts is of high temperature."

Is it not remarkable to see these identical phenomena—augmentation of heat, of vascularity, and of sensibility—described by Bird, in the insane predisposed to sanguineous tumors, and by M. Bernard, in animals subjected to the section of the great sympathetic? Might not this identity of symptoms, suggest a certain analogy in the causes which produce the functional disturbance?

Unfortunately it is yet impossible to state precisely in what this trouble in animals maimed by M. Bernard consists, but it renders it none the less important to lay stress upon its resemblance to symptoms often observed in medical practice. This comparison, of interest to all physicians, should be especially so to those having charge of the insane, to whom it may suggest different opinions relative to evidently congestive forms of mental maladies, where is so frequently observed contractions of one or both pupils, a phenomenon which is also invariable after severing the great sympathetic of the neck. It may indicate the solution of the formation of intercranial, meningeal and other hemorrhages; and, doubtless, a reason may be deduced from it to account for the blue swelling of the gums with sanguineous exudation, not unfrequent in general paralysis aside from all scrofulous tendency, and it should, I think, be present to the mind in endeavoring to explain sanguineous tumors of the ears.

That which I seek to indicate here is not the intimate connection existing between the circulation in the ears and that in the rest of the head; this is generally understood, and all know with what rapidity changes in color and heat of the ears accompany analogous modifications painting themselves on the face under influence of normal emotions, and which acting on the brain produce syncope or vertigo. In respect even to sanguineous tumors of the ears, several writers

among others MM. Belhomme, Cossy, Renaudin, and Delasiauve, have dwelt upon this connected circulation. But that which seems to me worthy of particular attention, is the identity of this general state of congestion in the head with that artificially produced by experimental physiology.

It would certainly take a long time for a sanguineous afflux in the capillary system of the pavilion of the ear, although considerable, to amount to an effusion, often copious, into the tissues of this organ, and no one transient congestion could produce such a result. But when this phenomenon is frequently and persistently repeated the artereal system becomes dilated, when an effusion is possible, especially, if favored by any alteration in the nature of the blood, which almost always occurs in diseases of long duration.

This is the reason, doubtless, that it seldom occurs but in old cases. It is natural to infer that when the tissues of the ear are thus altered those of the cerebral mass, subjected for the same time to the like influences, are so modified, on their side, that return to the normal state is no longer possible; this explains why these tumors are almost always the melancholy accompaniment of incurability. If, very rarely, they are found developed before this stage, or if even we have seen patients who furnish, by the anterior deformation of the pavilions, proof that they had previously had an attack of insanity followed by a temporary cure, it must be remembered that in these instances the modification of the ear would take place with unwonted rapidity; but all this detracts nothing from the correctness of the preceding statement for the vast majority of cases.

The ears once in this state of sanguineous turgescence, it is exceedingly difficult to ascertain how the effusion has been produced. Might not, perhaps, a certain degree of importance be attributed to some slight external friction as the determining cause? But a careful distinction must be drawn between the purely occasional influence slight traumatic causes might exert upon subjects thus predisposed, and the exclusive part these external injuries are sometimes supposed to take in the production of these tumors, a part, moreover, which most of the recent authors refuse to accord to them. Might not

also simple exaggeration of vascular tension suffice to induce a rupture, shortly followed by an effusion of blood, similar to that exhibiting itself in intercranial hemorrhages?

It is important to remark here, that if analogous tumors are produced in wrestlers from evidently traumatic causes, it does not in the least demonstrate that those of the insane have the same origin. When we reflect to what blows the ears of these athletes are exposed, who always endeavor to grasp the head of their adversary with their arms in order to throw him to the ground, or to make him pass under their shoulder, we cannot compare them to the injuries necessarily transient, to which the ears of the insane are exposed from brutal attendants, in moments when surveillance is relaxed, neither to the friction a patient may himself excite, on the edge of an arm-chair. Mark still further, that even in wrestlers the effects of traumatic violence may be increased by the state of sanguineous congestion invariably resulting from the prodigious efforts made in these contests.

II.

Whatever may be the predisposing and determining causes of these sanguineous tumors, one point of interest in their history consists in stating precisely their exact location. This question seems hitherto to have been doubted by none, and all authors agree in designating them as sub-cutaneous. However, in submitting this opinion to rigorous investigation, we find many zealous for questioning its exactness.

In dissecting an ear we ask at once, how a cellular tissue as delicate and unyielding as the sub-cutaneous layer of this region, could in a few days or hours even undergo such an extended detachment. But, supposing this possible, the blood once effused under the skin must necessarily invade the lobe of the ear and the sub-cutaneous layer of the internal face of the pavilion, since the cellular tissue is continuous in all these portions, and yet the tumor is always limited to the external face and cartilaginous part of the pavilion.

Further, if the blood were immediately under the skin it would

pass through the series of ordinary changes in a parallel case, and would not be re-absorbed without the various phases of its decomposition were traced on the exterior by a succession of blue, green, yellow colors, &c. Instead of this, the blood remains collected and well-defined; at first bright and fluid, it quickly divides into two portions, the one serous, citrine, and peripheric, the other central, fibrous, and of a deep red; the first disappears at once, the second becomes discolored, and sometimes is completely re-absorbed, sometimes partially continues. During this period the skin gradually recovers its normal color by the simple lessening of the bluish-red color which existed at the beginning, and without passing through any of the shades of ecchymosis. The observation published by M. Marcé, (*Annales Médico-Psychologiques*, Jan. 1859, p. 155,) plainly shows this contrast. In his patient, at the same time that both ears were the seat of sanguineous tumors, another effusion of blood was produced in one of the upper eye-lids. This latter was absolutely sub-cutaneous, and it presented the succession of ordinary symptoms in such instances, œdematous infiltration of the neighboring tissues, diffuse ecchymotic coloration of the teguments, suppuration and mortification of the cellular tissue, and finally, restoration to an almost normal condition; nothing similar took place in the ears.

All this, then, is incompatible with the hypothesis of a sub-cutaneous effusion; on the contrary, it indicates an effusion of blood into a limited cavity, separated from the skin by a resisting membrane, and not communicating in any part with the surrounding cellular tissue. Now this state is not possible in the ear but in one case; it is if the blood effuses itself between the cartilage and the perichondrium which clothes its external face, for we know that the cartilaginous tissue is everywhere covered by a fibrous membrane, which fulfills in its place the same nutritive purpose that the periosteum does in its connection with the bony tissue. If such is the precise location of sanguineous tumors of the ear, all that which appeared inexplicable becomes plain. The blood situated between the perichondrium and the cartilage is contained in a resisting sack which cannot extend beyond the outlines of the cartilage; it forms a fluctuating collection,

and can neither infiltrate the cellular tissue of other parts of the ear, nor give to the teguments ecchymotic tints.

After coming to this conclusion by clinical examination of the disease, we find the most complete confirmation of it in the successive study of the normal and pathological anatomy.

I have already remarked, that in dissecting an ear we find that the skin is immediately lined by an exceedingly close and resisting cellular tissue, which can only be divided with the aid of the scalpel. Through its inner face this cellular tissue adheres to a fibrous surface, and if we make a prolonged incision upon one of the projections of the pavilion as far as into the thickness of the cartilage, we clearly see, before penetrating into the substance of the latter, that we have successively divided the skin, the layer of cellular tissue in question, and lastly, a fibrous membrane, slight and glittering, whose inner surface is immediately applied upon the cartilaginous tissue. This adherence is easily broken; it requires only to raise a small portion of this perichondrium at the edge of the incision, and to introduce beneath it a blunt instrument, a grooved probe for instance; we can then by careful and moderate movements, detach it in almost its entire extent from the underlying cartilage; there are some places, corresponding to the under part of the depressions of this uneven surface, where this detachment is rather more difficult. This result is not a mere artifice of dissection, and the perichondrium does form a distinct membrane, for, with a little care, it is possible to separate it completely from the skin, by the dissection of the cellular tissue uniting them.

We perceive by this double operation, that on the one side the perichondrium adheres intimately to the cartilage, but is easily detached, whilst on the other, though less clearly joined to the skin, it is much more unyielding.

We can, moreover, infer this double connection of the perichondrium from that which occurs as to the periosteum, and more particularly the pericranium, with which it is strongly analogous. Every one knows, in making an autopsy where the skull is to be opened, if the incision which severs the ligaments extends to the bone, so that the fingers

can slip under the pericranium, it requires only slightly energetic, tractile effort to detach the latter as far as the eyebrows, or to the nape of the neck. When, on the contrary, the incision does not extend to the pericranium, and we seek to effect the separation of the cellular tissue which lines the scalp, it cannot be accomplished without great labor and the incessant use of some sharp instrument.

We readily comprehend from these anatomical processes, that even a slight detachment is almost impossible between the skin and the perichondrium, but, on the contrary, quite easy between this latter and the cartilage. This in effect occurs, and the pathological anatomy of these tumors furnishes the proof.

I should regret here that I had not given the results of dissections made personally, could I not replace them by preferable authority, that is to say by facts published long since by authors foreign to the views here expressed, such facts that I could not have desired, I had almost said, could not have invented those more favorable to my theory. I shall first investigate the pathological anatomy of sanguineous tumors of the ear in its existing period, then that of the deformed ear following the disappearance of one of these tumors.

For the first case we have no autopsy, but can supply the deficiency by noting that which takes place when incisions are made into these tumors, having a therapeutic end in view. This point has been made the subject of careful investigation by M. Merland. When the contents of a tumor have been emptied by an incision, "it is easy," he says, "to circumscribe with the end of the finger, or with a stylet the walls of the cyst, and to remark that the morbid liquid rests directly upon the cartilage." This is still another undeniable confirmation of the correctness of the location I have assigned to these tumors, but is it not astonishing that an author who has touched the truth with the point of his finger, who has seen the blood settled directly upon the cartilage, should not have realized that he held in his possession an important fact towards the explanation of the symptoms of this disease, should none the less have designated it as sub-cutaneous effusion of blood, forgetting, doubtless, that between the cartilage and the skin is found the perichondrium?

This point determined, it becomes easy to comprehend that which occurs when the blood is re-absorbed. During the period when the tumor is at its height it represents a vertically-elongated ovoid, limited by two convex faces. A Bird has happily remarked, that one might at first imagine he saw the half of an egg cut lengthwise and applied upon the external face of the ear. When this sack empties itself the perichondrium, consisting of an exceedingly retractile fibrous tissue, contracts itself gradually, carrying with it the cartilaginous wall, which, in order to adapt itself to these diminished proportions, is forced to double upon itself. In instances where the volume of the tumors is considerable, and the skin exceedingly distended, the latter must also fold itself, so as to follow the contraction of the perichondrium. This explains the shriveled appearance invariably supervening after tumors which have occupied a large portion of the pavilion, a deformity only affecting the superior part of the ear, never the lobe. But this consecutive deformity is connected with yet another source, the investigation of which serves to complete the parallel between the periosteum and the perichondrium, and extends to this latter those reproductive properties for a long time the subject of research by M. Flourens, and ingeniously demonstrated in the recent works of M. Ollier.

In effect, if we consider that the perichondrium is charged with the secretion of the cartilage, as the periosteum secretes the bone; if we reflect that the latter, separated from the bone to which it was attached, still continues to emit upon the surface formerly adherent a bony substance, the rudiment of a new formation of bone, we shall naturally be disposed to believe that in a similar situation the perichondrium would act in a like manner, and that its internal surface, separated from the cartilage it had hitherto clothed, would notwithstanding continue its work of secretion, and produce a newly-formed cartilaginous layer. This hypothesis, supported as it is by the thickening, whether general or partial, which forms the indelible characteristic of the disease under consideration, finds its rigorous demonstration in the dissection of ears formerly affected.

This species of post-mortem examination is not common; I have

only been able to find four autopsies in French works ; one by M. Belhomme, two by M. Merland, one of them very incomplete, and finally, one by M. Cossy. But this latter is reported with such minute care, and with such precision of detail, and moreover so fully accords with the opinions promulgated in this article, although none of them were present to the mind of the author, that it is indispensable I give it here in full, notwithstanding its length.

One of the three patients in whom M. Cossy had watched the development of one of these tumors dying of general paralysis, the author profited by the occasion to study the anatomic changes existing in this patient. He gives the following account (*Extrait du mémoire de M. Cossy, tumeurs sanguines de l'oreille dans Archives générales*, 1842, t. 15, p. 294) :—

“ Autopsy.—The two ears are of the same dimensions in width and height. The external face of the left ear, the one affected, presents upon its exterior the following : The border of the helix, the groove which limits it, the tragus, the anti-tragus, the lobe, appear perfectly in their normal condition. But the hollow of the concha is not so deep as in the healthy ear ; the skin covering it, although retaining its normal color, is unequal, undulating, and grooved by depressed lines, cicatrices of the numerous incisions made by the lancet. Feeling the pavilion of the ear at this point, we find it remarkably thick, and much less flexible than that on the healthy side. As to the orifice of the auditory tube, it retains its form and ordinary dimensions.

“ A horizontal section made perpendicularly to the plane of the pavilion of the ear, and passing three millimetres of the orifice of the auditory tube, reveals that at the plane of the concha the pavilion is from seven to eight millimetres in thickness, whilst in the healthy ear it is only two millimetres. The surface of the section is not homogeneous, but consists of several superposed layers, which are in proceeding from within outwards :—

“ 1. The skin of the temporal face of the pavilion of the ear and the underlying cellular tissue perfectly healthy, and without increase in thickness, which is a millimetre at most.

"2. A whitish line, smooth and shining, from a half to two millimetres in thickness. This line is evidently formed by the cutting of the auricular cartilage, which in its course, its curvatures, its variations of thickness, is precisely identical with the cartilage of the healthy side, examined in a section entirely parallel.

"3. A third layer, from two to three millimetres in thickness, exists at the point, of the thickness of the concha only; it is composed of a reddish fibrous tissue, of more consistency than recently-coagulated blood. The blunt head of an ordinary stylet penetrated it with facility.

"4. A line, slightly irregular and wavy, about a millimetre in thickness, of a whitish color, having the aspect of cartilage, appearing to extend itself before and behind the red layer indicated, and continuous with the cartilaginous line already described, and which results from the cutting of the cartilage of the ear; but this continuity is only apparent, as we shall shortly ascertain.

"5. Finally, the last layer is formed by the skin of the external face of the concha, which skin is firm, dense, of a millimetre and a half in thickness, comprising the cellular tissue beneath.

"To sum up in a few words, we find that the surface of the section presents two cartilaginous lines, containing between them a space in which is confined a reddish fibrous tissue."

Are not these latter words, which belong to M. Cossy, evident confirmation of the theory I propose? It is perfectly clear that, besides the primitive and unthickened cartilaginous layer, a new one is produced upon the inner surface of the detached perichondrium, and that between these two layers, therefore between the walls of the cavity within which was produced the sanguineous effusion, is yet found the remains of that effusion, that is to say, "this reddish fibrous tissue, of more consistency than recently-coagulated blood, and which the blunt head of an ordinary stylet penetrates with facility."

Any remaining doubts will be dissipated by the further details given by M. Cossy.

"It remained to determine," he says, "if the cartilage of the ear

were healthy or diseased. I continued my dissection in raising the tissues layer by layer, and in commencing at the external face of the pavilion. In proceeding thus I ascertain that the sub-cutaneous cellular tissue, increasing in density and thickness, adheres closely to the whitish, elastic, cartilaginous lamina, which is thicker at the centre than at the circumference, and existing only at the point of the thickening of the concha. At its borders it grows thinner little by little, degenerating insensibly into a fibro-cellular tissue, and intermingling directly with the sub-cutaneous cellular tissue. At its edges it does not continue in any sense with the cartilage of the ear, simply joined to this latter, and united to it by a very close cellular tissue, allowing of their easy separation by slight tractile efforts, without employing the scalpel. Beneath this cartilaginous lamina is the reddish fibrous tissue already partially described. In some parts it is formed of a species of mesh, containing a small quantity of black, liquid, inodorous blood. Lastly we come to the cartilage of the ear, which forms the foundation of the collection. Its surface is every where shining, not at all wrinkled, and without abnormal coloration. In a word, it appears perfectly healthy in all respects, even after comparison with that of the healthy side."

There is then no room for supposing that the cartilaginous layer underlying the teguments of the external face of the pavilion was owing to the splitting of the primitive cartilage, since it is in no part continuous with it, and since it is every where separated from it by a very close cellular tissue, which allows of their easy division. This is then a newly-formed cartilage, owing to the plastic exudation which is produced upon the surface of the perichondrium detached from its natural connection. It is true, M. Cossy does not give to it this explanation. For him this new cartilage results from the transformation of the false membrane covering the hemorrhagic collection; at first soft, it acquires, little by little, much greater consistency, and after some time has all the characteristics of cartilaginous tissue.

But if, as the author says, the hemorrhagic collection had been covered with a false membrane, this latter must have existed upon

the internal face of the accidental cavity, as well as upon the external, but there was no trace of it; further, in his hypothesis, the new cartilage, instead of being clearly distinct from the fibrous mass, must have mingled insensibly with it, but it is the contrary takes place; this layer is then evidently a secretive product of the perichondrium, and the latter, obedient to its functions, has fulfilled its office and produced cartilage.

After the analysis of the autopsy, made and described with such minute care by M. Cossy, it will suffice to throw a rapid glance over those reported by M. Merland.

"In one case," he says, "I found the cartilage thickened at the point of the ordinary seat of the lesion; in the other, besides this thickening, existed a kind of new cartilage, a centimetre and a half in diameter, and which seemed to me connected either to a thickening of the peri-cartilaginous membrane, or to an isomorphous production. This newly-formed tissue, situated before the antihelix, and in the neighboring portion of the concha, was white, like the normal cartilage, and nowhere imbued with blood, although eroded and ulcerated." The author doubtless indicates here the inequalities and rugosities of the disengaged face of the new cartilage. "It did not adhere to the true cartilaginous tissue; between them was a narrow space, lubricated with a citrine serosity."

We perceive that matters stood here exactly as in the case by M. Cossy, only the effused blood had been completely reabsorbed, and between the two cartilaginous layers, instead of a reddish mass there only remained a narrow space lubricated with a citrine serosity, that is to say, the vestige of the old centre of disease. It might happen that at a degree more advanced this narrow space itself would be filled up, and its cavity replaced by cellular adhesions. We can comprehend how important it would be to make a section perpendicular to the length of the ear, as was done by M. Cossy; for if a dissection were only made layer by layer, the existence of the two distinct cartilages might not be recognized, and nothing seen but the simple ordinary thickening of the concha.

Before concluding I will add a few words to complete the parallel

I have already indicated, between the pericranium and the perichondrium. We have seen in how far these two membranes resemble each other in an anatomical and physiological point of view; the resemblance is the same pathologically considered. Sanguineous projections are frequently formed upon the surface of the skull, under the influence of blows and falls. If, generally, they consist in a sanguineous infiltration of the sub-cutaneous cellular tissue, they may also, as Malaval has already shown, (*Mémoires de l'Académie de Chirurgie*, t. i., p. 345) arise from a sub-pericranial effusion, thus resembling in their location the tumors discussed in this article. But the resemblance is still more strongly marked to another kind of sanguineous tumors of the skull—those which are sometimes developed during the course of a laborious accouchement, and to which we give the name, properly speaking, of *céphalématomes*. In reading the description of these latter, found in the researches of Nægele, Zeller, of MM. Paul Dubois and Valliex, we find all the salient characteristics of tumors of the ears. They are fluctuating masses, composed of blood effused between the external face of the bone and the detached perichondrium; the liquid of the effusion passes through the same series of transformation, without the teguments assuming ecchymotic tints; finally the detached pericranium emits upon its inner surface a bony substance of new formation, marking every where the circumference of the detachment. The comparison then of these two diseases shows them to be alike, and demonstrates the perfect analogy existing between the membrane covering the bone, and that clothing the cartilages.

The ideas put forth in the course of this article may be summed up in the following conclusions:—

1. Sanguineous tumors of the pavilion of the ear observed in the insane are composed of blood effused, not under the skin, but beneath the perichondrium, detached from the cartilage.

2. The perichondrium thus detached contracts in proportion as the blood is reabsorbed, carrying with it in its retreat the other portions of the pavilion, which accounts for the deformity consecutive to this species of tumor.

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2. The perichondrium thus detached contracts in proportion as the blood is reabsorbed, carrying with it in its retreat the other portions of the pavilion, which accounts for the deformity consecutive to this species of tumor.

3. The perichondrium emits upon its inner surface a newly-formed cartilage, which constitutes sometimes a layer united to its entire surface, sometimes independent islets more or less distant from each other. These productions are the cause of the thickening of ears which have been affected by sanguineous tumors.

4. The formation of sanguineous tumors of the pavilion of the ear is generally preceded and accompanied by disturbance in the cephalic circulation; and it is worthy of remark, that the increase in redness, in heat and sensibility, which we find in these cases, resembles in a striking manner that observed in animals upon the section of the great sympathetic of the neck, or the ablation of the superior cervical ganglion. Although it is impossible at this time to draw from this comparison any precise conclusions, still it is to be hoped that new investigations pursued in this direction will throw certain light upon the etiology of congestions and hemorrhages in different portions of the head.

BIBLIOGRAPHICAL.

REPORTS OF SCOTCH ASYLUMS.

1. *Annual Reports of James Murray's Royal Asylum for Lunatics, near Perth.* 1855-56-57-58.
2. *Eighteenth Annual Report of Crichton Royal Institution for Lunatics, Dumfries.* November, 1857.
3. *Report of the Directors of the Royal Lunatic Asylum, Infirmary, and Dispensary of Montrose, for the year ending June 1, 1856.*
4. *Annual Reports of the Royal Lunatic Asylum of Aberdeen, for the years ending March 31, 1856-57.*

5. *Annual Report of the Royal Edinburgh Asylum for the Insane, for the year 1857.*

1. In a review of the report of the Commissioners appointed by Her Majesty, the Queen, to inquire into the existing state of Lunatic Asylums in Scotland, we gave, in a recent number of this journal, a brief account of the condition of the insane in that country. While noticing some of the defects of those institutions, as made known by the report under notice, we took occasion to allude to the high character of the medical men employed in superintending them, and to their indefatigable exertions in providing means and appliances for the restoration of their patients. In the present number, we design to notice more particularly the occupations, recreations, and amusements which have contributed in no small degree to give to these institutions the high reputation which they enjoy. Not that we would recommend the general adoption of these means to the extent to which they are employed there; because we are inclined to think that, in accordance with a well-known law that excessive development in any one direction tends to diminished growth in some other part of the economy, a share of the attention which has been given to this portion of asylum-management in these institutions might have been profitably devoted to other objects. We believe it is important to bear in mind that it is by the regular and systematic employment of all the influences that the physician can bring to bear upon his patients, rather than by any spasmodic efforts that may be made, either in furnishing gay parties, in abolishing the use of restraining apparatus, or in other ways, that the true interests of the insane will be best promoted. Still, it may be worth while to know what has been done by our brethren in Scotland, whose labors in behalf of the insane may perhaps after all have been forced to take this direction in consequence of their being excluded from a wider field of duty by the mode of organization that exists there. It may be proper to remark that the Scotch Asylums are organized upon the false system which considers a number of heads, and a division of responsibility as necessary to the most efficient working of such establishments; and we

see them each provided with a consulting physician besides the physician resident in the house, whose duties may be supposed to be confined to the medical, moral, dietetic and sanitary treatment of the patients. Being thus relieved of the general management, including all those points connected with construction, heating and ventilation, upon which so much of the health and general comfort of the patients depends, their activity is in some measure confined to the narrower range of prescribing for the more immediate personal necessities of their patients. But if restricted in their field of labor, it must be admitted that they have occupied it to the best advantage; and we can scarcely avoid regretting that in every department of hospital management these institutions are not permitted more fully to enjoy the advantages of their direction.

After remarking, in the report for 1855, that the introduction of recreations among the insane can no longer be regarded as an experiment; that their success has been fully established by the experience of the best institutions in this country, on the Continent and in America; and that they are not to be looked upon as mere transient gratifications, or as frivolous, and tending to dissipate, degrade, or pervert the mental energies or moral feelings of the insane, the superintendent, Dr. Lindsay, proceeds to give an account of the modes of recreation employed during the year at the James Murray's Royal Asylum for Lunatics, near Perth, from which we extract the following:—

“Five concerts were given during the winter in presence of between 40 and 70 patients. The performances included every variety of vocal and instrumental music, and the performers, composed of a mixture of the patients and officers, numbered between 10 and 20. * * * Recitations of selections from the English Poets were interspersed by way of variety among the musical performances. The weekly Ball continues to be a source of infinite gratification to a large number of the patients. The average number present is between 30 and 60. Several patients frequently occupy in rotation the post of honor at the piano, and one acts as master of the ceremonies. All the usages of polite society are observed, and the whole proceedings take place under the immediate supervision of several of the officers. Three dress Balls have been held; one on Halloween, and two during Christmas. At these,

from 70 to 90 were present. * * * The third was a *Bal costumé* for the higher-class patients; the room was decorated with floral wreaths and festoons, and illuminated by Chinese lanterns. The *tout ensemble* resembled some of the descriptions of the fabled 'Arabian Nights,' rather than the gallery of a lunatic asylum. * * *

While the recreations of winter consisted principally of balls, concerts, and parties, those of summer are principally pic-nics, athletic games, and *fêtes champêtres*. During the last summer, there were several fishing excursions among the gentlemen to Loch Freuchie, besides mixed pic-nics to Kinnoul Hall, and other places of scenic interest in the immediate neighborhood. This summer, two pic-nic parties of fourteen persons, seven of each sex, have already been dispatched: the first to Dunkeld; the second to Invermay. The day was spent amid the beautiful scenery of Straathbrau in the one case, and the Birks of Invermay in the other; and the parties returned in the evening highly delighted with their excursions, and full of jokes, remarks, and critiques on the scenes and persons they had seen or met. Glenfarg, Campsie, Boinam, Rossie Priory, and the Carse of Gowrie, are the projected scenes of future pic-nics during the present summer. The Queen's birth-day was celebrated by a *fête champêtre*, at which between 50 and 60 persons were present. Fifty persons sat down to tea on the bowling-green, and the amusements which followed consisted of cricket, bowls, quoits, leaping, dancing, and music; the proceedings being appropriately concluded by the Queen's anthem, sung in chorus by the assembled company. * * *

"The ministrations of the Chaplain—public and private—continue to be generally appreciated, and eagerly sought after. Divine service is held in the chapel three times a week. On Sunday, the average attendance is from 50 to 60. * * *

During the earlier winter months *conversazioni* are occasionally held, at which, in addition to ordinary amusements, the wonders of the microscope were demonstrated to a select number of the higher-class patients, averaging 20. * * *

During the later winter months a course of lectures on economic botany, or the applications of botany to common life, was delivered on the Saturday evenings, to an average audience of 30 persons, belonging chiefly to the higher classes of patients. * * *

As an immediate and gratifying result of these scientific meetings, four lectures were delivered by two patients to the same audience, the subjects being respectively, 'the Beauties of Nature,' 'Antiquities of Perth,' 'Comicalities,' and 'Superstitions of the Highlands.' * * *

A meeting is held weekly, under the superintendence of the Matron, for the practice of sacred music; meetings for the practice of secular music, in preparation for the concerts, have occasionally been substituted. * * *

A class for the elements of

dancing, as a preparation for the Christmas festivities, was instituted and superintended by a patient, by whom also classes for the theory of music, writing, and arithmetic are projected, as a part of the business of next winter."

The above may be taken as a specimen of the staple of amusements furnished the patients, as described in the different reports of the institutions now under notice. From that of June, 1857, which chronicles the establishment of a literary journal conducted by the patients, we extract the following, as an evidence of their intellectual activity :—

"Its title is 'Excelsior, or Murray's Royal Asylum Literary Gazette,' and its first number was published in January of the present year. It has met with a most cordial reception from the press, both in England and Scotland. A considerable number of its readers, both in Perth and at a distance, have become subscribers, and the demand for it far exceeds the expectations of its projectors and conductors. There is no dearth of contributions; the editor has on hand a large quantity of MSS. for future numbers. One patient threw off in a few weeks as many verses as might serve to fill the poet's corner of 'Excelsior' for years; another has furnished a large amount of manuscript regarding our pic-nics, concerts, lectures, and classes; while a third has written voluminously on such subjects as, the 'Transportation of Convicts,' 'Parochial Education,' and 'Emigration.' At present one patient is translating passages from the 'Pleasures of Home,' into German prose; while another is translating extracts from the French of Buffon, Lacépède, St. Lambert, &c., into English for 'Excelsior.' * * *

The French and German classes have consisted of a select few of the higher ranks of patients; the former was conducted by a gentleman, the latter by a German lady, both patients, some of the officers of the institution being among the pupils. In the latter case, the class was the result of a spontaneous offer on the part of the teacher, the anxious desire to occupy herself in teaching being the first sign of improvement in her mental health. * * * The lectures are no longer an experiment—they have become an integral part of our educational system. They have been more varied, and altogether of a higher class than in former years. The duration of each lecture has been more than doubled in consequence of a complaint on the part of the patients, that half an hour, to which we restricted the lectures originally instituted, was much too short.

* * * They have gladly availed themselves of every opportunity of privately meeting the lecturers, and conversing fully and freely on the subject of their productions. Thus a breakfast-

party was given on the morning after Professor Blakie's lecture, for the purpose of bringing a few of the higher-class patients more intimately in contact with the learned lecturer, with whose vivacity and affability, as well as distinguished talents, they were greatly delighted. Patients have also taken short-hand notes of the lecturers; have made copies of the diagrams; have written voluminous reports to their relatives, old companions, or to the superintendent, or have penned critiques for 'Excelsior.'

"We have to acknowledge with heartfelt gratitude the extreme kindness of the several lecturers mentioned in the programme, many of whom came, at considerable trouble, from great distances to minister to our gratification and instruction. Thus the Professor of Greek in the University of Edinburgh, did not hesitate to leave his academic benches to appear in our lecture-room. These sacrifices and labors of love have been duly appreciated by many of the members of our community, upon whose minds they have left most vivid and lasting impressions. The delivery of lectures by men of the highest literary and scientific eminence to an audience composed of the inmates of an asylum we hold to be a most significant sign of the times—significant inasmuch as it evidences the great revolution which has taken place in public opinion within the last few years regarding asylums and their inmates. Both the matter and manner of these lectures have repeatedly called forth encomiums from the public press; the subjects were severally treated precisely as if the lecturer had been discoursing in the theatre of an Athenæum or Mechanics' Institute, instead of the lecture-room of a lunatic asylum."

2. The Report for 1857 of the Crichton Royal Institution for the Insane is the last from the pen of its former distinguished superintendent, Dr. W. A. F. Browne, who has ceased his connection with the institution, and has been succeeded by Dr. James Gilchrist. In taking leave of the institution with which he has been for so many years connected, he uses the following language, which we offer no apology for laying before our readers by way of introduction to our notice of his reports:—

"To those who have read the previous reports of this institution, and received them as the reflection of the progress of a peculiar community, which accompanied and in some respects anticipated the march of improvement, and of the opinions of an earnest man who had lived for a quarter of a century with the insane; who had loved them and been loved by them; who expected and was willing to devote his whole life and mind to develop new or apply improved means of amelioration; and who, conscious of his own deficiency

and of the inadequacy of the remedial agents at his disposal, panted after further observation and greater enlightenment ;—it may not appear extraordinary that the production of the last of the series should prove a difficult and painful duty. Such a composition must prove a record of unfinished labors, of inchoate projects, of views and convictions which must either be committed to the execution of others, or pass away abortive and forgotten. But it must further contain the announcement of the disruption of ties and associations and habits which have been the growth of a generation, and the cessation of a connection which has been characterized during its long continuance by harmony, by confidence and friendship, and which has had, on both sides, the single and unselfish purpose of carrying healing and happiness to the sorrowing and suffering, of restoring useful members to society, and of protecting from themselves and from evils which they can neither foresee nor avoid, the waifs and strays, the weak and wayward of our race."

Dr. Browne avoids the error into which physicians so commonly fall, of presenting only the agreeable side of hospital life.

"It has been customary," he says, "to draw a veil over the degradation which is so often a symptom of insanity. But it is right that the difficulties of the management of large bodies of the insane should be disclosed ; it is salutary that the involuntary debasement, the animalism, the horrors which so many voluntary acts tend to, should be laid bare. No representation of blind phrensy or of vindictive ferocity so perfectly realizes, so apparently justifies the ancient theory of metempsychosis, as the belief in demoniacal possession, as the maniac groveling in the earth, glorying in obscenity and filth, devouring garbage or ordure, surpassing those brutalities which may be to the savage a heritage and a superstition, and which to the pariahs, the criminal outcasts of civilization, are a necessity of existence."

We need not follow him into the details of the picture which he gives of the disease, under its most revolting aspects and most degraded forms. Every one familiar with the management of the insane will be able to realize it sufficiently by calling to his recollection the worst cases he has himself witnessed of perverted tastes, of degraded habits, of filthiness, obscenity, and malicious mischief.

Neither does he, while recognizing the great benefits to be derived from a variety of occupations and amusements, conceal the difficulty of providing them to suit the requirements of each case.

"All patients," he says, "might be employed, were it prudent to

use as a universal remedy what is obviously adapted for certain cases only. But there is a difficulty in providing mental occupation for the educated insane, in addressing each cultivated faculty, in stimulating each satiated taste so as to command attention; in recommending subjects which, if presented as medicine, might prove as nauseous as the drugs of which they may be the substitute. The curable and the convalescent remain but a short time under such influences, and are attracted by the novelty as well as gratified by the intrinsic importance of intellectual training. But there is a large stationary population in every asylum. There are estimated to be about sixty curable cases only in this establishment, who suffer from the monotony, the ennui, the lassitude and discontent consequent upon protracted confinement, who have exhausted the ordinary means of occupation, and to whom classes and concerts become insipid and uninteresting, and yet of whose happiness such agents are important elements. Every effort has been made to vary and multiply these arrangements. Excursions, of which there have been sixty-three, through the fairest scenes, pall upon the sickly more readily than on the healthy fancy; and to visit annually the same spots with the same companions, and under similar circumstances, is more a test to patience than a remedy for weariness. An attempt has been made to impart new features to such expeditions. To the gentle excitement of the journey, the impressions of rural life, the unfettered exploration of groves and glades, baronial halls and Druidical monuments, there have been added lectures on natural history. Botany and entomology have been selected as the most appropriate sciences for investigation, and the wild flowers gathered or trodden upon, and 'the winged flowers or flying gems' that rested on them, became themes of instruction and illustration. * * * The veteran beetle-hunter, who had forgotten his lore amid the cares and sorrows of life, might be seen eager and earnest, forgetting impending ruin and misery in the pursuit of his prey; and the misanthrope wore garlands, and lived for a time in harmony with nature, as if childhood, and hope, and faith had returned. Such trivial arrangements bear fruit, and demonstrate that all impressions may be brought to act upon the diseased mind. One companion of these rambles has months subsequently, and now in the possession of comparative sanity, ordered a microscope for the examination of minute objects of natural history; and another tossed by demonomania, who has listened to the lectures as detailed by others, counted and examined thirteen distinct species of insects upon the window-pane, through which he defies his diabolical tormentors."

In regard to the relation between asylum-physicians and their patients, Dr. Browne expresses the following sentiments:—

"In an asylum the physician becomes the friend, and companion, and instructor of those for whom he prescribes. He sees them every day for years; he mingles in their amusements, joins them in worship, lives with them, and if he comprehends the scope of his influence, the triumph of his art, he loves them. In many cases this affection and interest are returned; and even when they are not, there is dependence upon his skill, respect for his authority, subjection to his will. But they occupy more intimate relations. The physicians' room is a confessional. The confidence reposed is as sincere as if it were from penitent to priest. To him are disclosed the history of each life; the follies, errors, calumnies, which have cast down, the misfortunes which have ruined; the virtuous aspirations which have been misconstrued and defeated; exaggerations of crime; depreciations of worth; ambitious projects, for which the originator claims the merit of patriotism or philanthropy;—all that dignifies or degrades human nature. To him are attributed the power of life, and liberty, and hope; in him actually reside the sources of comfort, contentment, and restoration. Even where men have been in antagonism for years there grows up a relation between them. It has been said of one so placed, that he preferred the society, and valued the interests of the insane, more than those of healthy and happy men. The explanation was, that he knew them better, had analyzed their nature, found in it elements of excellence and beauty, and points at which intercourse could be established; that he learned to mould and adapt these materials into form and usefulness, and occupied the position of a parent and a guide. Where such ties have long existed, where there has been boundless trust upon the one side, and sincere pity on the other, it would be unnatural were the connection broken without deep and lasting regret."

3. As bearing upon the question of the disuse of restraining apparatus, Dr. Gilchrist, the physician to the Royal Lunatic Asylum, Infirmary, and Dispensary of Montrose, relates the case of a female, who was disposed to injure herself by striking her head against any object that might be within her reach. This disposition continued for the whole of two years which she passed in the Asylum. The case was rendered more interesting by a tendency to erysipelatous inflammation, which was frequently lighted up by the slight injuries inflicted upon herself. The patient, an infirm and phthisical female, was placed in an arm-chair, padded all round, to which she was confined by a light and loosely-fitting apparatus, so arranged as to prevent her leaving it without the permission of her attendant. In relation to the case the doctor remarks:—

"This case has often suggested itself to us as sufficient test of the universal applicability of non-restraint. How could an attendant or any number of attendants have prevented this patient from injuring herself during two entire years; or if they could, would their incessant interference have been either more agreeable or less injurious?"

The doctor also gives an account of what he says with justice may be called an "epidemic of abstinence," which continued for three or four months, during which time eleven men and five women persisted in their refusal of food until coercive measures were rendered necessary:—

"The feeding apparatus used was the ordinary feeding-syringe with the œsophageal tube. On other occasions we have used the naso-œsophageal tube, but have no hesitation in deciding, as far as our experience goes, that the former is preferable to the latter, and that this mode of feeding is vastly better in every respect than any of the older systems. With the feeding-chair and syringe, Newington lever and tongue-regulator, we have never met with any difficulty that could not be overcome with perseverance."

We can not agree with the author in his preference of the common œsophageal tube to that we believe first employed by Dr. Bail-larger, and introduced through the nostril. In cases of determined closure of the teeth it is very difficult to regulate the force necessary to be employed in forcing them asunder, so as to avoid doing injury either to the angles of the mouth or to the gums or tongue, and the writer of this notice has seen a case in which some of the teeth were so loosened, by the daily application of force for several weeks together, as finally to be lost, though the patient's life was saved, and her restoration effected. We do agree with him, however, most fully in the opinion, "that no hospital for the insane should be without a complete set of feeding apparatus, whether as regards the comfort of the physician or the welfare of the patients."

In relation to the mental occupation and employment of the patients we notice the following:—

"By the success of these partial efforts, our previous convictions of the vastness of educational resources, in the moral treatment of insanity, have been confirmed. It is our firm belief that they are

very partially understood, very imperfectly appreciated, and, as yet, almost wholly undeveloped.

"In addition to our Bazaar, Library, Museum, and classes, a series of lectures and concerts was arranged for the summer months, which have undoubtedly afforded both pleasure and profit to the patients. The getting up of a course, instead of a succession of isolated or occasional lectures, was grounded on the conviction that when recurring at fixed periods in regular succession, they are much better fitted to secure the objects intended in moral treatment, than in any other mode. In this way is secured not merely the beneficial influence procured by impressions made at the moment of delivery, or by reflection afterwards, but also what is of equal, if not of greater importance than either, that produced by anticipation. This was sufficiently obtained, by distributing over the house programmes of the entire series, a few days before each lecture."

"In addition to our classes, courses of lectures, and concerts, and other means of instruction and amusement provided in the house, similar provisions in town have been repeatedly visited and shared by the patients. In this way, lectures, concerts, panoramas, flower shows, menageries, legerdemain, ventriloquial, and other exhibitions have been frequently attended. A party of ladies and gentlemen also attended regularly a course of lectures on botany and geology, given in the Museum, in connection with the Natural History Society.

"During the last summer 13 pic-nics were made to various interesting localities in the neighborhood, a privilege extended to the pauper as well as private patients.

As the effect of improved arrangements with respect to bedding and clothing, of an increased number of attendants, and also in no small degree as Dr. G. believes, of the unceasing care and attention of the latter, it is stated that the proportion of the patients inattentive to cleanliness, has been reduced in two years and a half, from $21\frac{1}{2}$ to 12 per cent. of the whole number under care.

4. The Reports of the Aberdeen Asylum, by Dr. Robert Jamieson, are very brief. In that for 1856, the recoveries are stated to be upwards of 50 per cent., and in that for 1857, at nearly 60 per cent. on the admissions. In neither of these Reports is any mention made of the occupations or recreations of the patients. Are we hence to infer that in this institution no importance as remedial agents is

attached to those means which occupy so large a share of the attention of physicians to the other asylums, whose reports have been noticed? Or must we conclude that the great efforts used in nearly all the Scotch Asylums, to furnish entertainment and instruction to the inmates, really give them no advantage as curative institutions over that at Aberdeen, where such means appear to be but little used? In none of these do the results show a higher proportion of cures than that stated to have been reached during the last two years at the last-named institution.

5. The report of Dr. David Skae, of the Royal Edinburgh Asylum, contains a number of interesting facts connected with the medical history of patients who had been under treatment, and a condensed summary of post-mortem appearances in 56 patients who died during the year. As we are principally occupied in the present notice with the treatment employed in these institutions, we feel under the necessity of passing over this portion of his report. In regard to occupation and amusements, we are informed that—

"All the various amusements and appliances in use in former years have continued in full vigor during the past one. The weekly ball and concert in the West house, occasional parties in the Eastern house, weekly meetings for practising sacred music, daily meetings for education in reading, writing, arithmetic, occasional lectures on various subjects, occasional dramatic representations, with the regular available resources of billiards, bagatelle, cards, draughts, quoits, cricket, bowls, and other amusements suitable for in-door and out-door recreation; the sources of intellectual improvement afforded by our library, annually increasing by purchase and by the gifts of friends, a liberal supply of newspapers and periodicals, and by contributions to our monthly periodical; these, and the weekly visits to resorts of public interest, concerts, menageries, promenades, public lectures, the theatre, or circus, or pic-nic parties, have been liberally and constantly extended to all who were capable of enjoying them, or likely to be benefitted by them."

REPORTS OF AMERICAN ASYLUMS.

1. *Annual Report of the Resident Physician of Kings County (N. Y.) Lunatic Asylum.* For year ending July 31, 1859.
2. *Report of the Resident Physician of the New York City Lunatic Asylum.* For the year 1858.
3. *Report of the Pennsylvania Hospital for the Insane.* For the year 1858.
4. *Annual Report of the Managers of the Western Pennsylvania Hospital.* For the year 1858.
5. *Report of the Resident Physician of the Philadelphia Lunatic Asylum.* For the year 1858.
6. *Sixteenth Annual Report of the Mount Hope Institution, near Baltimore.* For the year 1858.
7. *Report of the Board of Visitors of the Government Hospital for the Insane.* For year ending June 30, 1858.
8. *Twentieth Annual Report of the Board of Trustees and Officers of the Central Ohio Lunatic Asylum.* For year ending October 31, 1858.
9. *Fourth Annual Report of the Board of Trustees and Officers of the Northern Ohio Lunatic Asylum.* For year ending October 31, 1858.
10. *Seventh Annual Report of the Superintendent of the Hamilton County (Ohio) Lunatic Asylum.* For year ending June 5, 1859.
11. *Sixth Biennial Report of the Board of Trustees of the Illinois State Hospital for the Insane.* For two years ending December 30, 1858.
12. *Annual Report of the Commissioners, Superintendent, and Treasurer of the Indiana Hospital for the Insane.* For year ending October 31, 1858.
13. *Report of the Board of Managers of the Missouri State Lunatic Asylum.* For two years ending November 29, 1858.
14. *Report of the Board of Managers of the Eastern Lunatic Asylum of Kentucky.* For year ending November 30, 1858.

15. *Report of the Board of Managers of the Western Lunatic Asylum of Kentucky.* For two years, 1857-58.
16. *Third Biennial Report of the Trustees, Treasurer, Architect, and the Physician and Superintendent of the Tennessee Hospital for the Insane.* For two years ending Sept. 30, 1857.
17. *Reports of President, and Directors, and Superintendent of the Insane Asylum of North Carolina.* For two years ending November 1st, 1858.
18. *Report of the Regents of the Lunatic Asylum of South Carolina.* For year ending November 5, 1857.
19. *Fourth Annual Report of the Trustees and Medical Superintendent of the Mississippi State Lunatic Asylum.* For year ending September 30, 1858.
20. *Annual Report of the Board of Administrators of the Insane Asylum of Louisiana.* For the year 1858.
21. *Report of the Medical Superintendent of the Provincial Lunatic Asylum at Toronto (C. W.)* For the year 1858.
22. *Report of the Board of Commissioners, and of the Superintendent of the Provincial Lunatic Asylum of New Brunswick.* For year ending October 31, 1858.

1. The city of Brooklyn sustains a high character for the intelligence and philanthropy of its citizens, and since the city of Williamsburgh has been united with it, has ranked in population among the largest American cities. Its pauper insane are treated in the County Asylum, at Flatbush, now just without the City limits, and exceed in number those of several entire States. The present asylum-building was erected only five years ago. Its plan was similar to that of the more modern State institutions, and the whole design was liberal and with reference to future necessities. Only the central building, however, was completed, and an urgent need is now felt for the two wings, included in the plan. The old building for the insane, some half a mile distant, has again been occupied—it is to be hoped only temporarily—and is entirely filled.

There were at the beginning of the year 268 patients, and 187 had since been admitted. There were discharged recovered 86, improved 49, unimproved 10, and 20 had died; in all 165.

Of those remaining at the close of the year 213, or more than three-fourths, were of foreign birth. This fact is of course unfavorable to the best statistical results, and demands greater effort on the part of the officers of the asylum to arrive at a liberal and curative standard in its management. Dr. Edward R. Chapin, resident physician, and formerly assistant physician to the Vermont State Asylum has, we believe, all the qualifications for success in such an effort, and it is to be hoped he will be efficiently sustained.

2. Dr. Ranney reports the general condition of his asylum for the past year as satisfactory, and describes several improvements in the sanitary, economic and other departments. Among these are an improved water-supply; the erection of a fine summer-house; the reclamation of marshy ground by a sea-wall; and the introduction of fancy-work for fairs among the female patients, the proceeds from which to be devoted to the purchase of books, musical instruments, &c.

At the beginning of the past year there were 627 patients in the asylum; and there had been since 355 admitted, and 327 discharged. The monthly average was 660.

In view of the large population crowded into an asylum calculated to furnish room for only 450 patients, Dr. Ranney urges an immediate extension of the buildings. To what extent further accommodation should be provided is suggested by statistics, which show an increase of more than 60 per cent. every ten years, for thirty years ending with 1856. "Carrying out this ratio to 1866, accommodations will be required for nearly 1000 patients."

Yet the number of insane in the asylum by no means represents the amount of insanity in the City. In the want of any reliable census of this class in the City or State, Dr. Ranney makes the accurate census-returns of Massachusetts, in 1854, the basis of an approximative estimate, and concludes that there must be about 2000 lunatics at this time in New York city.

The attention of the Board of Governors is also called to the fact "that more than one-half of the inmates of this asylum have no

legal residence" in the City. A large number of these are of the floating population of both native and foreign birth, who have no legal residence or certain means of support. These naturally tend toward the centres of population, and largely swell the numbers of the incurable insane. Another source of pauper lunacy is a more direct one, from the Commissioners of Emigration, who "pay for the support of their patients until they have been five years in the country, at which time this class is left a burden to this city." The proper remedy for this evil, Dr. Ranney thinks to be the recognition of two classes of pauper lunatics, the Town, and the State; as in Massachusetts, where non-residents are supported by the Commonwealth. Patients of this class would then be treated in the asylum nearest at hand upon their becoming insane, at the expense of the State. Such a law would ensure their humane care, and tend to increase the proportion of recoveries. It would render imperatively necessary the erection of two additional State asylums, but it would prevent the uneconomical and every way undesirable extension of the N. Y. City Asylum to the enormous proportions which it must soon attain, under the present system.

3. The report of Dr. Kirkbride presents a complete and interesting account of the operations of the Hospital for the year, together with much valuable information, the fruit of a long experience in the treatment of mental disease and the care of the insane.

131 patients have been admitted, and the same number discharged during the year; leaving 230 at its close as at its commencement. 63 were discharged recovered, 41 improved, and 18 had died. Two deaths followed acute mania, and were from the gradual exhaustion of mental disease.

While Dr. K. is obliged again to report a greatly crowded state of the hospital, he trusts "that this unpleasant statement is now given for the last time." This hope is based on the steady progress toward completion of a new hospital, located at a few rods distance from the present one, and to be conducted partially in connection with it. It is gratifying to know that the new institution is now nearly ready to

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be opened, and we hope to read a particular account in an early succeeding number of the *JOURNAL*.

It is well known that Dr. Kirkbride has given great attention to the subjects of the employment, instruction and amusement of insane patients. The lectures and entertainments in the annual course at the Hospital have numbered one hundred and twenty-two, during the past year. The notices of these, the farm and garden, the workshops, the museums and reading-rooms are calculated to gratify the warmest and most intelligent interest in the welfare of the insane.

Dr. Kirkbride's yearly reports are not only minute in description and detail of the operations of the Hospital, but contain a large amount of valuable information upon the subject of insanity, to the general reader. A first step toward the successful treatment of mental disease, and a most difficult one indeed, is to substitute for those misconceptions and superstitions which seem native in the minds of communities, correct views and sentiments regarding its unfortunate subjects. This has sometimes been undertaken in the early history of institutions with ability and success, only to be given up after a few years. Dr. Kirkbride recognizes the constant necessity of keeping up this portion of his report, which, though it may seem like repetition to a few professional readers, to the great majority has a fresh interest, and conveys much useful and salutary instruction. As a specimen of this valuable popular teaching we give the following :—

“ Another error—formerly very prevalent, and although now discarded by the most intelligent portion of the community, still occasionally alluded to—is that of regarding insanity itself, or the residence of an individual in an institution for its treatment as a reproach, or as destructive of future prosperity in life. The accident of having an attack of disease, to which all are liable, and especially if without any direct agency of our own, or certainly without any thing on our part that was dishonorable or criminal, can be no reproach to any one. A sensible man, when sick, will adopt such means for the restoration of his health as the experience and advice of honest and intelligent men give him reason to suppose will be most likely to effect that object; and if that end will probably be soonest and most certainly attained by entering a hospital, it would clearly be an imputation upon the sound judgment of himself and

his friends, if he did not promptly avail himself of any advantages it might afford. Practically it will be found that it is the character and subsequent actions of the individual, rather than the disease from which he has recovered, or the means of treatment to which he has resorted—the doubt whether he is well, rather than the fact of his having been sick—that injures prospects in life, where injury of such a kind is done. Those who have recovered and have the mind to contemplate this malady in its true light—avoiding equally a levity that is unbecoming in reference to any affliction, and a morbid sensitiveness on the subject that is only productive of injury—can hardly fail to impress every one, whose good opinion is at all worth having, with the conviction, that whatever may have been the nature of their illness, their recovery has been complete, and without the slightest impairment of their mental powers, or any diminution of their capacity for usefulness in life.”

4. Dr. Reed, though regretting the limited and entirely insufficient accommodations of the Hospital under his charge, is enabled to look forward to a speedy relief from a new institution now building at about seven miles distance from Pittsburgh. Yet he is able to record “some improvements in the Hospital and its surroundings, very important to the comfort, safety, and health of the household.” Among these are the fitting-up of a new ward for twenty patients; the introduction of a large supply of water from the city reservoir; the erection of a building to provide a boiler-room, laundry, &c.; and the entire removal of hot-air furnaces, their places being supplied by steam-piping.

The number of patients had increased from 74 at the commencement, to 90 at the close of the year. 67 had been discharged; of whom 34 were restored, 13 improved, 8 unimproved, and 12 had died.

Of the deaths, and of the sanitary condition of the house is stated as follows:—

“Two died of dysentery, one of consumption, one of inflammation of the bowels, one of disease of the heart, and three of exhaustive mania. One was brought to us from jail in an exhausted condition, and laboring under acute dementia, after a confinement there for several months, in a badly-ventilated apartment and without care or proper food, and notwithstanding every attention was given him, he

soon sank and died. Another was admitted who had been for some time confined in jail, and while there was inhumanly beaten by criminals with whom he was associated—his jaw broken, his body covered with severe bruises, and otherwise so severely injured that he soon died. The last of this sad catalogue was brought to us from a neighboring county poor-house, his body covered with deep and extensive burns, received by falling on a stove used for warming his apartment, and so exhausted as to preclude all hope of his recovery. We allude to these facts, because there are those in the community, of fair intelligence and humanity, who think that poor-houses and jails afford all the care and comforts that the insane need.

"Although the Hospital has been crowded during the year, we have been remarkably exempt from epidemics and accidents. A few cases of diarrhœa and dysentery occurred, but they were among those difficult to control in diet, or worn down by disease. With these exceptions, the health of the household has been good."

5. The Lunatic Asylum in connection with the Philadelphia Hospital (Blockley) contained at the close of the year 416 patients. 376 had been admitted during the year, and 366 discharged. Of the latter 111 had died, and 255 were cured, or relieved, or removed by friends.

There can be no doubt of the much less curability of mental disease in towns than in country districts. While in the selection of its victims insanity is governed by laws as yet most imperfectly known—while no proximate cause or condition of its attack has been discovered—we do know that such condition is most general among the subjects of vice, frailty, and want, and that the incurability of the insanity thus related as compared with that found among a rural population, is in even greater ratio than the frequency of the disease. Yet these facts need not be stretched to cover such results as have to be reported of the Philadelphia Asylum. A more sufficient explanation is needed, and is not withheld by Dr. Smith. The following is his general statement of the case :—

"The facilities for the treatment of the insane at this Institution are very limited. All those moral resources, which are so important in controlling a disordered intellect, should be at command, and the accommodations for this class of patients ought to be entirely changed. The old Hospital-building, now occupied as a Lunatic Asylum, is

totally unfit for the purpose, and a new Hospital for the insane poor is one of the imperative wants of Philadelphia."

The details of the disgraceful condition of the Asylum are also given. The connection of the Asylum with the Hospital and Almshouse; its unhealthy location; its offensive and pest-breeding water-closets, sinks, and sewers; its deficient water-supply; its improper heating and ventilation; its illiberal supplies, and the general neglect and mismanagement of its affairs,—are candidly set forth in the Report. It is to be hoped that they will engage the immediate action of the citizens and authorities of a city claiming to be the centre of liberality and philanthropy in our land.

6. Dr. Stokes reports 145 patients in the Institution at the close of the year. 138 had been admitted and 130 discharged. Of those discharged 61 were recovered, 36 improved, 20 unimproved, and 13 had died.

Although this is not a public institution, and has no legal provision for the treatment of the pauper and indigent insane, yet its accommodations not in use for pay-patients are devoted to the non-paying class. A part of the care of the patients is undertaken by the Sisters of Charity.

The following is a cheering account of the future prospects of provision for the insane in Maryland :—

"In this State we have now three first-class institutions in progress,—the New State Hospital, the Sheppard Asylum, and the New Mount Hope Institution. The crowded state of this Asylum no longer leaves it a doubtful question as to the policy it becomes its guardians to pursue. Additional accommodations must be provided, and they have wisely determined to erect a first class institution—capable of receiving from 250 to 300 patients—on the farm, six miles on the Reisterstown Road. This embraces a tract of 360 acres, well watered, healthy, and susceptible of any amount of improvement and embellishment.

* * * * *

"The dimensions of the structure will be on a very extended scale, and the edifice, when completed, will equal in its proportions any other similar institution in the Union. The whole front of the structure will be 580 feet, with wings 130 feet each, and a centre

building 60 feet by 100 feet. The wings on either side will be 40 feet from front to rear. These wings will be broken, and recede back, so as to afford perfect ventilation. The building proper will be four stories, and the centre building five stories high. This will make the height of the centre building 75 feet, and the height of wings 58 feet. Beneath the centre portion will be the basement, with rooms for domestic purposes, reception of patients, &c. The centre building will be crowned with a belvedere or dome, commencing at the apex of pediment, 65 feet in height from the apex of roof. Over the end of each wing will be erected large cupolas like ventilators, to carry off the impure air. Through the stories of the building, lengthwise, will run fine corridors 11 feet wide, with the wards opening therein. The wards will be heated by steam generated in an engine-house, some distance from the main building. The wards will number about 300, each provided with separate means of ventilation. The patients' parlors, associate dormitories, and all the other apartments will be similarly arranged.

"The chapel for the inmates, in the main centre, will be 37 feet by 40 feet. Directly in the rear of the chapel will be located the Sisters' dormitory, 37 feet by 18 feet, and in the front a reception parlor 24 feet by 45 feet.

"The plans contemplate the Palladio-Italian style of architecture, and the hospital will be constructed of fine brick, prepared on the spot. Granite and stone will also be freely introduced, to give strength and compactness to the whole. The roof will be covered with slate. The site selected for the hospital is upon a knoll or hill, about forty feet above the level of the main road. The hill on the south side slopes down to a small stream, and terminates in a broad meadow beyond. On the north is heavy woodland."

7. At the date of Dr. Nichols' report, one year ago, he was able to record the steady and favorable progress towards completion of the centre building, and three sections of the wings of the Hospital. In addition to this much had been accomplished in the improvement of the farm and grounds, the building of out-houses, walls, etc. Only a portion of the west wing is as yet occupied, and four sections of the east wing have not been commenced. Dr. Nichols recommends the early completion of the entire design, and is assured that the excess of accommodations for the insane of the Army and Navy, and of the indigent class of the District, might be filled with, and profitably devoted to the treatment of pay-patients.

The number of patients remaining at the close of the fiscal year was 117. 43 had been admitted, and 36 discharged. Of the latter 18 were recovered, 2 improved, 3 unimproved, and 13 had died.

8. The report of the Central Ohio Lunatic Asylum forms a bulky pamphlet of 79 pages, including the usual minute detail of the Steward's accounts, covering thirty pages. Dr. Hills' report is also quite lengthy, and includes a complete history of the asylum, and a general summary of its statistics for the twenty years of its operation. The asylum-building as at present existing was completed in 1847, ten years after its commencement. The cost of the entire structure has been \$153,821 84. Its proper capacity is for 253 patients. There were at first two classes: pay-patients, and paupers supported from the State treasury. Since 1851 there have been no pay-patients, but all are supported wholly by the State. None but citizens of Ohio had been received for several years previously to 1851.

The institution continues filled to its utmost capacity, and the question of further provision is becoming urgent. Dr. Hills recommends the building of additional State asylums, rather than to turn the patients back upon the counties, and thinks that to provide for the incurables in "a separate establishment, would be more consistent with economy and the spirit of the age."

255 patients were under care at the date of the report. 175 had been admitted, and 179 discharged during the year. Of those discharged 101 were recovered, 12 were improved, 47 unimproved, and 19 had died.

The following remarks are submitted upon the general summary of statistics for twenty years:—

"I will merely say for the benefit of those who are shy of figures in masses, that the twenty years experience of this institution shows that out of every *one hundred* cases of not more than one year's duration when admitted, *seventy-three* have *recovered*, and *eight* have *died*: that of the same number of more than one year's duration when admitted, *twenty-five* only have *recovered*, and *twenty* have *died*. The remaining nineteen in the first hundred have nearly all been

improved, while the remaining fifty-five in the second hundred have nearly all remained *unimproved*. Also that out of every one hundred of *all* patients admitted and subsequently discharged, including all shades and varieties, hopeful and hopeless, *fifty-five* have been restored, while *fourteen* have died, *twelve* have been improved, and *nineteen* remained unimproved.

"Nearly an equal number of the sexes seem to be admitted, though this might be mainly from the necessities of accommodation. A larger proportion of females it may be seen recover, while a smaller proportion die.

"The general impression that the young more readily recover from insanity than the older classes, does not seem to be supported by the figures, the greatest proportion of recoveries being from those who are from forty to fifty years of age."

9. The resignation of Dr. R. C. Hopkins as superintendent of the Northern Ohio Lunatic Asylum, at Newburg, took effect at the close of the year 1857, and Dr. Jacob Laisy received a *pro-tem.* appointment to the office. Dr. L. was afterwards chosen to the post for a term of six years; but the Trustees in order to place over the institution "a man of more mature years and enlarged experience," and who should command a greater degree of public confidence in the institution, deposed him, and appointed Dr. O. C. Kendrick in his place. Dr. Laisy, at the same time, is highly commended by the Board. The Superintendent's report for 1858, is by Dr. Laisy. It is lengthy, and contains much matter of a professional as well as of popular interest. The following cases of insanity connected with fracture and depression of the skull, and their cure by the use of the trephine are remarkable:—

"The first was that of a male, aged 48 years, residing in the State of Indiana; was injured on forehead, in the year 1853; great pain in the head, fever and delirium followed the accident for two weeks, at which time the inflammatory symptoms subsided, leaving him with a confused intellect approaching insanity, with loss of memory and irritable temper; becoming gradually more turbulent and violent toward his family, he was placed in the insane asylum at Indianapolis. After a lapse of two and a half years, he was discharged from that institution, declared incurable. After remaining at home in that State nearly a year, he was brought to Ohio—was placed again in confinement in the Cuyahoga County Jail. After another lapse

of a year and a half he was seen by Prof. Thayer; his condition then was that of a raving maniac—nothing whatever seeming to arrest his attention or his violence for a single moment. An examination showed a depression on the frontal eminence. An operation was decided upon as promising some hope, and on removal of the depressed portion of the skull, by the trephine, the internal table of the same was found hypertrophied, and firmly attached to the dura mater. The appearance of the membrane of the brain was normal. As soon as the effects of the chloroform passed off, the patient was at once restored to full reason, after a total obscuration for five years. His memory of events, prior to the injury, was restored with vivid freshness. All between the injury and operation, (a time of five years,) naught but one sense of intense pain. All symptoms of insanity entirely disappeared, and at the end of four weeks he returned to his home and family, with mind entirely restored.

"Dr. L., a citizen of Indiana, æt. 30, was thrown from a carriage against a post, fracturing the skull in the region of the frontal eminence, extending from the central line one and a half inches towards the right. A portion of the orbital arch, which was forced in, was immediately removed. The patient was partially insensible for eighteen days from the accident; fever supervened, continuing three weeks. After the inflammatory symptoms had disappeared, he was able to be about, but was haunted with the fancy that ferocious animals were pursuing and seeking to destroy him. His memory gradually failed; excessive secretions of saliva, of an acid character, caused constant spitting day and night.

"All preceding symptoms gained intensity, until about the first of September, when the patient was seized with fever, continuing two weeks; the wound of the orbital arch, which was only partially healed before, commenced to discharge pussy matter. After recovering from this attack, his former delusions, without changing their character, assumed other forms; fancied that wife and friends were devising schemes to take his life; sought every opportunity to injure them. His memory so far failed him that he was unable to distinguish between different properties of medicines, frequently mistaking one for another of entirely different taste and appearance. The patient was brought to Cleveland on the 30th of September. Prof. Thayer was consulted by his friends. On examination, it was discovered that the fractured portion of the skull was depressed. An operation was advised, to which the patient consented. On the following day, the right portion of the depressed bone was removed; the internal table was found pressing on the dura mater, producing chronic inflammation, but no effusion; the dura mater was very much hypertrophied, and also the internal table of the bone, which was firmly attached to the membrane. The intolerable feeling following the injury was compared by the patient to that of an iron band

drawn tightly around the head, but ceased directly after the operation; and at the expiration of ten days he returned to his home, perfectly sound in mind."

In half a dozen other cases of chronic mania and general paralysis the delusions are described, we suppose, only to meet a popular demand for the morbid and extraordinary. The statistical tables are very numerous and minute. Some of them are rather fanciful, and not obviously connected with any theory as to their scientific use.

The Chaplain appends a separate report, which is mostly devoted to an unnecessary and inconclusive plea, called forth by the fact that "the number of patients admitted during the last six or eight months whose insanity has been ascribed to 'religious excitement' by the committees and judges who prepared the legal papers for their admission into the institution, is somewhat greater than usual." That religion not only does not produce insanity, but that, on the contrary, it is of the greatest value as a prophylactic against the disease, is a well-ascertained truth. That religious excitement may produce insanity in every respect as any other emotional disturbance—that is according to its intensity and its duration, sometimes taking effect by the shock, sometimes through exhaustion from being long-continued—is abundantly proved, and is admitted by the highest religious, as well as medical authority. It is true, indeed, that in a large proportion of cases of insanity popularly attributed to religious excitement as a source, an experienced medical observer will fix upon some other cause as the efficient or determining one. The results of a careful analysis, made by a competent alienist, of the cases referred to by the Chaplain, would be the proper method of arriving at the truth of the matter in question with him.

The general results of the year are as follows: Remaining at the close of the year, 155. Admitted 123; discharged 116,—recovered 66, improved 16, unimproved 27, died 7.

10. The Hamilton County Lunatic Asylum is that mainly occupied by the insane of the city of Cincinnati; and, we regret to say, is conducted under more than the usual disadvantages belonging to

municipal institutions of its class. More than two-thirds of the patients are of foreign birth, and disease, vice, and poverty in the widest sense of the term are the portion of nearly all. The institution receives the hopelessly-demented, the imbecile, and idiotic, who are never discharged except by death, as well as acute cases that under the best treatment possible in such a place must too often be reduced to a like hopeless condition. Dr. Mount does not hesitate to give a faithful picture of the inhumanity and neglect of the authorities, and to enter his remonstrance :—

"As heretofore, and as must always necessarily be the case under conditions similar to those affecting us, the diseases attacking our inmates, no matter what may have been their type primarily, speedily assume an asthenic character, requiring the most prompt, efficient, and persistent stimulating plan of treatment to successfully combat them. When we look around us, and observe nearly three hundred persons crowded into apartments but illy suited to indifferently accommodate one-third the number, forced, for want of space, to remain closely and constantly pent-up and unoccupied through the day, and at night crowded together in large numbers in small rooms, in too many of which there is no method of ventilation whatever, (for, owing to the fact that we have no means of heating the sleeping-rooms of two of our buildings, the windows must be kept closed, particularly during the winter months, to prevent our patients suffering from cold, knowing the ordinary effects of breathing such a vitiated atmosphere, poisoned by the nauseous effluvia arising from so many human bodies)—we are led to conclude that the freedom from sickness among these old demented people, and the tenacity of life manifested by them, must be accounted for on the ground that the derangement of the mental faculties renders the system less vulnerable to the ordinary causes of disease and death."

* * * * *

"You are not unacquainted with the total absence which exists in this Institution of all those means and appliances that an enlightened age, a truer conception and more thorough knowledge of the nature, causes and mode of treating insanity have suggested, that the philanthropy, commendable charity and public spirit of those having charge of insane asylums has provided them with, and the experience of devoted scientific men has proven to be most efficient in successfully treating the disease. For, notwithstanding judicious medical treatment is of incalculable importance, it can not prove eminently curative unless seconded and accompanied by an enlarged and approved system of moral treatment."

The weekly cost of maintaining each patient at this asylum is *one dollar and seventy-one cents*. The average cost at other American institutions for the insane is nearer four than three dollars per week.

The general results for the year are, under the circumstances, very favorable. The fiscal year closed with 273 patients. 164 had been admitted, and 121 discharged. Of the latter 62 were recovered, 17 improved, and 17 had died.

11. Dr. McFarland's report (biennial,) is in great part given to a description of the new heating and ventilating apparatus, and other changes introduced into the Hospital, with the completion of the additional wings of the edifice, according to the original design. In the minute description of the labor just completed, we recognize the combination of all the valuable sanitary, economic, and other improvements, the result of the best and latest experience in similar institutions, of this and other countries.

Dr. McFarland writes upon this subject as follows :—

"All concerned in the improvements of the two years now passed, can safely repose on the verdict which posterity will pronounce on their labors. The institution, as it will stand when fully complete, will be excelled by few in the Union in point of size, and by none in the excellence of its interior arrangements. Durability of construction and simplicity in arrangement are its distinguishing features. The almost monastic plainness of its design and finish, will cause any one to search in vain for a single dollar expended in ornament. If regarded simply as "additions," the work involved in existing contracts may appear costly. Yet, considering that when complete, the buildings will as easily receive five hundred patients as the present one does two hundred, they will be additions in which the major part is added."

The general statistics for two years are : Admissions 312 ; discharged 297 ;—recovered 164, improved 31, unimproved 60, died 42. These are commented upon as follows :—

"The admissions have not been as numerous by about one hundred as they would have been with room at command to accommodate all applicants. The number recovered somewhat exceeds that of the two years previous. The number of deaths exceeds that recorded in the last report, though there has been no epidemic. Most of the

deaths have been from the exhaustion of mental disease, of either long or short duration."

The most valuable practical suggestions that can be urged upon a community by those who have charge of its insane, are admirably combined in the following paragraph, at the conclusion of the Report :—

"When county authorities will carefully regard the institution in such commitments as they encourage, in the higher light of a hospital for the cure of a curable malady, and not too much as a place of final consignment for those desirable to be forgotten,—when physicians will not consume time in vain efforts at restoration by mere medical treatment, while for want of the moral agencies of such an institution delusions are becoming confirmed, and all the prejudices and perversions of insanity are grounding themselves in the mental constitution,—when an intelligent public opinion shall fully agree that, even admitting the possible evils arising from the consociation of the insane, a properly regulated institution does immeasurably enhance the prospect of cure, and that opinion is made to bear on every case in its early stages, *then* shall this hospital have full scope for its usefulness, and all that its warmest friend could hope will certainly be achieved."

12. In the history of the Indiana Hospital, for two years previous to the date of the present report, we have an illustration of the shameful results which follow from making the interests of public charities dependent upon the recklessness and ignorance of partisan legislation. The Indiana Legislature of 1856-7 "adjourned without making any appropriation or arrangement for the support of the State Benevolent Institutions, in accordance with the requirements of the first section of the ninth article of the Constitution of Indiana, consequently the Board was under the painful necessity of disbanding on the 3d of April, 1857, and sending the patients to their friends, if they had any, or to the counties from whence they came—there to be confined in jails or poor-houses, perhaps without the smiles or soothing hand of an earthly friend to take care of, watch over, or in the least to alleviate their sorrows."

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tive assumed the responsibility of re-opening the Hospital, and advancing funds for the support of public patients. Beside the amount of misery wantonly inflicted by this neglect of a class for whose relief the best efforts of science and humanity are so insufficient, the relations which should subsist between neighboring and federated States were also disregarded. In the desperation of the friends and the local authorities, to whom the evicted lunatics fell, they were in part thrust upon the charities of other States, to whom they are still a burden. At the end of a month after the re-opening of the Hospital only 71 patients had been received.

During the year closed with this report, however, the applications have been largely in excess of the admissions, and Dr. Athon urges the immediate enlargement of the Hospital by the addition of one wing, still wanting to complete the buildings according to the original design. This will increase the capacity of the Hospital from 260 to 370 patients.

In the law organizing the Hospital, admission is entirely denied to epileptics as being incurable. While the law contemplates the care of the chronic insane to any extent in this institution, such a discrimination is obviously unjust and inhumane. No class of the insane are more dangerous to community, or require more skillful or special care than epileptics. Dr. Athon advises that separate provision should be made for them, and in reference to their association with other patients says :—

"It is well to mention in this connection, that if there were room for the epileptic insane in our wards, and they were admitted for treatment, that it would be highly injurious to other patients, with whom, under the present arrangement, they would have to associate. The peculiar scream attendant upon a paroxysm of epilepsy as a general thing frightens patients, and creates in them a fear for their own safety; and the chronic condition of epileptic insane is another potent reason—if they are admitted at all—why separate and appropriate buildings should be erected for the treatment of this, our most unfortunate class of insane. In Europe, and in many places in this country, apartments are assigned expressly to epileptics, where they are subjected to treatment without any inconvenience to other patients. The epileptic insane require more heat, and are more disposed to destroy their clothing and denude themselves, and in consequence

require a greater amount of attention than other patients ; for which reasons, their apartments should be constructed with reference to fulfilling all the indications of treatment of such cases."

We may be allowed to entertain somewhat different views of this subject. The peculiar circumstances of every community must decide for it the question of associated or separate provision for the curable and the incurable insane. There can be, perhaps, no general law of humanity or good policy upon this point. But in the best institutions, where both these classes are treated, we shall find the form of the insanity, without reference to its origin in epilepsy, or other disease, determining the classification of patients. These asylums have epileptics on their quiet as well as on their more disturbed wards, and no difficulty not avoidable by proper supervision is experienced. The partial consciousness, which many insane epileptics have in the intervals of their paroxysms, of their sad condition and of their relations to those about them seems to forbid their distinct classification, and an entirely separate provision for them would, of course, be open to still greater objections.

277 patients were remaining at the date of the Report. 310 had been admitted, and 104 discharged. Of the latter 80 were recovered, 11 improved, 5 unimproved, and 8 had died.

13. Dr. Smith is enabled to report the near approach to completion of another wing of the Asylum-edifice. This will give accommodations for seventy additional patients. Further enlargement is, however, imperatively called for, and this is urged by Dr. S., as are also many improvements of a sanitary and economic kind, with an eloquence, and a comprehension of what is demanded for such an institution, that deserves to be rewarded by success in his humane efforts. The criminal insane of the State are still sent to this Asylum, and an appeal is also made for separate provision for this class, which deserves the earliest attention.

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14. Although the Report of the Trustees of the Eastern (Ky.) Asylum is made biennially to the Governor, it includes separate reports for each year by Dr. Chipley. 198 patients were remaining at the date of the last Report. 100 had been admitted during the year, and 70 discharged. 37 were discharged recovered, 13 not recovered, and 20 had died.

It is pleasant to find in this Report an account of what has been done during the year, and what is still in progress toward the improvement and completion of the Asylum, rather than the statement alone of what remains to be accomplished. Of the latter, however, is provision for the treatment of colored insane. Dr. Chipley says:—

“The propriety of providing for the relief of this class of persons is respectfully submitted. Such a measure is dictated by humanity, and it addresses itself to the feelings of a generous people, who were never known to fail to meet every responsibility involved in their institutions. It is a measure of public safety, inasmuch as the maniac slave may become as dangerous to society as one of our own race. It is a measure of relief to the slaveholder, who is not prepared to manage his dependent when bereft of reason, or to give him that chance for restoration, which is demanded alike by humanity and the interest of the owner. It is a measure without expense to the State—for there are no pauper slaves—all have masters who will willingly meet every expense that may be incurred in the support and treatment of their unfortunate servants.”

He also suggests the erection of an institution for the care and education of idiots, and cites the examples of Massachusetts and New York as justifying the expectation of most beneficial results from such a step. We close with the following upon the value of mental discipline as a preventive of insanity:—

“There is, in fact, a power in man to prevent or control insanity, and it fails chiefly when it is inefficient for want of cultivation, or when it has been misdirected in the earlier periods of life. This power is rarely efficient unless it has been developed and strengthened by education, and hence the poor and unschooled are the greatest sufferers from the most terrible of all human afflictions. They fall before a blow that would be severely felt by others. For example, the educated and uninstructed are alike the subjects of illusions of the senses, but the trained mind of one will recognize the true character of its illusions and adopt suitable measures to correct the

morbid condition on which they depend ; while the other, unable to reason or judge, will accept them as real, and act accordingly. The illusion may be precisely the same with both, yet the one subject is sane, the other insane. It has been truly said, that much of the essential difference between sanity and insanity consists in the degree of self-control exercised. Vagaries intrude themselves upon all minds, but the man of strong mind represses them and seeks fresh impressions from without, if he find that aid needful—the man of weak mind yields to them and he is insane.

"If the occasion were suitable, many illustrious examples of insanity, avoided by the exercise of self-control, might be adduced. That the impulses of even the insane are, in a great degree, subject to their will, will be obvious to any intelligent observer who may visit a lunatic asylum. How readily the inmates conform to the discipline of the institution. They may be deceived by their senses—believe that real which does not exist—suppose themselves masters of unlimited wealth and power, and yet, under the influence of proper motives, they will resist their impulses, and exhibit unmistakable evidence that their actions are still subject to the will. On this principle we base the moral treatment of the insane ; we seek to arouse the intelligent will to self-control by kind and humane treatment, and a judicious system of rewards for good, rather than punishment for evil doing. The old system sought no such object ; chains and the lash aroused the baser passions of our nature,—fear, revenge, &c., and stimulated a struggle for the mastery, but they could not call into action that intelligent will with which man is endowed by his Creator, and in the exercise of which there is the surest guarantee for the prevention and control of insanity. This is probably one reason why so few restorations were effected under the old system ; a want of success that induced the belief, which still lingers in the public mind, that insanity is incurable. This internal power to control the action of the brain, which is possessed, in some degree, by every one, and which is so sedulously cultivated and stimulated into action in the modern treatment of insanity, was wholly ignored, until within a very recent period.

"If, then, this power of control exists and is rendered efficient only by education, what is the practical conclusion ? That of all the duties devolving on government, there is none of higher import than that of providing for the education of the humblest citizen within the commonwealth. Under the influence of other and sufficient motives Kentucky has inaugurated a generous system, which can not fail to extend the advantages of education to the remotest border of her territory ; and, to my mind, among the blessings this system will dispense, not the least will be the preservation of many minds from the most horrible of all the evils to which our race is subject—mental derangement."

15. The Western (Ky.) Asylum is comparatively a new institution, and its wards are only fitted for use as they are needed. The building is calculated to accommodate 350 patients. At the date of the present biennial report 102 were under treatment. 95 were admitted, and 80 discharged during the two years. Of the latter 38 were recovered, 13 improved, 5 unimproved, and 18 had died.

16. The Tennessee Hospital in its completed condition is most creditable to the State, and to the officers who have been appointed to direct its charitable interests. Dr. Cheatham in his third biennial report, speaking of himself in the third person, says :—

“ In his report of 1855, he gave a detailed description of the additions to the centre buildings ; and it will only be necessary here to say, that they consist of two wings—each one hundred and forty-four feet in length and forty in breadth, at right angles with the centre, to which they are attached, so as to increase its facade eighty-two feet ; thus presenting a front of four hundred and nine feet. The original design of the Architect has thus been carried out, and the result is, that a building has been perfected for the treatment of the insane of the State, which, for capacity and all the appointments for health and convenience, as well as architectural elegance, has no superior for similar purposes in the United States. Two hundred and fifty patients can be comfortably lodged and treated in this building, and it has been so arranged as to admit of a judicious classification of patients of both sexes. But little, comparatively, is now wanting to constitute it a first-class Hospital for the Insane ; and it must remain a noble monument to the wisdom, humanity, and munificence of a great State.

“ The arrangement for heating and ventilating is as near perfect as that of any similar institution. In his report of 1855, the undersigned gave a detailed description of the mechanism of warming and ventilating which he had then in contemplation, and which has been perfected in every particular, and, during the severe test of last winter, proved itself to be all that could be desired.”

The heating and ventilation are by steam-piping and a fan, after the most improved arrangement. The sanitary record of the Hospital in connection with the above is interesting :—

“ The general health of the entire establishment, for the last two years has been excellent. No epidemic of any character, has prevailed. While other localities have been visited with dysentery,

typhoid fever, and other diseases, in a malignant form, the patients here, and those having the care of them, have escaped. At no time have we ever been threatened seriously with a visit from any of those diseases. Much of the good health all have enjoyed here, for the last two years, may be justly attributed to the admirable mode of warming and ventilating the buildings which has been adopted. Out of the nineteen deaths occurring in the institution, in the last two years, not one was the result of an acute disease."

Dr. C.'s Report is an elaborate one, and replete with general and popular information upon the subject of insanity. We can only append the general statistics in conclusion: Admitted during two years 122; discharged 69; remaining 158. Of those discharged there were recovered 28, improved 12, unimproved 10, and 19 had died.

17. Dr. Fisher's Reports are brief, and devoted mainly to details of the financial and economical operations of the Asylum. He recommends, among other changes, that all pauper patients should be made chargeable to the State. Many patients are believed to be detained in the jails and poor-houses, for the reason that the more sparsely-populated towns and counties are unwilling to assume the burden of their support at the Asylum.

The capacity of the institution is for 240 patients. There were remaining at the date of the last Report 146. 57 had been admitted, and 49 discharged during the year. 24 were discharged recovered, 6 improved, 10 unimproved, and 9 had died.

18. A new building has been recently added to the Asylum at Columbia, which will, by its improved construction and the better classification afforded, contribute much to the efficiency and comfort of the institution. During the year for which the present Report is made the Asylum has been crowded to excess. At its close there remained 193 patients. 69 had been received, and 64 discharged. Of the latter 35 were recovered, 8 unimproved, and 21 had died.

19. The fourth annual Report of the Mississippi Asylum is very brief, and refers almost solely to matters of local interest. The insti-

tution has but just fairly entered upon its work, and is still imperfect and incomplete. One of the evils common to all recently-organized asylums is alluded to by Dr. Williamson. It is that almost all the admissions are at first of utterly hopeless, chronic cases. This is very disheartening, and it needs much courage and experience to keep up with them a proper, curative organization. The institution is supported directly by the State. As yet no provision has been made for the treatment of slaves.

106 patients remained in the Asylum at the date of the Report. 59 had been admitted, and 36 discharged. 21 had recovered, 3 were discharged improved, 5 unimproved, and 7 had died.

20. Dr. Barkdull states that two-thirds of the number of his patients are of foreign birth. Many of these are received from New Orleans, where they have recently arrived in that state of mental and bodily depravation so hopeless of relief in such a class. The proportion of deaths has not, however, been great, and the Trustees remark that "while during the past summer disease and death were spread far and wide through our State, the Asylum remained free from any visitation of the fearful scourge, and its inmates continued in the enjoyment of unusual good health. The treatment of this afflicted class during the past year, by our Physician and Superintendent, has been highly satisfactory, and in a great degree successful."

The Asylum is still burdened with the idiotic, and with the criminal insane, in addition to the legitimate subjects of its treatment. To a relief from these classes, and to much needed improvements and re-construction of the buildings, Dr. B. solicits the attention of his Board.

It is also intimated, in reference to the subjects of intermarriage and heredity, that "certain consanguineous connections" exist to a considerable extent among a class of the creole population, and that the fruits of such connections illustrate the fatal penalties of a natural law.

The Asylum as at present completed will accommodate 225 patients. 125 were remaining at the date of the Report. 84 had

been admitted, and 73 discharged during the year. Of the latter 32 were recovered, 9 improved, 5 unimproved, and 27 had died.

21. With the last Report of Dr. Workman, for ten months ending with the year 1858, we have received a pamphlet containing his first three reports, embracing a period of nearly four years from July, 1853.

The Provincial Lunatic Asylum at Toronto was opened for patients in 1841. The edifice consisted of a central building and two wings, with accommodations for about 350 patients. Two rear wings of the same capacity were included in the original design of the Asylum, but have not been erected. Upon assuming charge of the institution, in 1853, Dr. Workman found a deplorable condition of things. Drainage was entirely defective, and "underneath the kitchens and adjoining parts the filth was found to measure from three to five feet in depth." The effluvia from this filled the house, in which ventilation was almost wholly unprovided for. The patients were continually suffering from endemic disease from this source, and from their overcrowded condition. Three-fifths of their number were chronic and hopeless cases, and they were associated with the most limited means of classification.

Effective sewerage and thorough ventilation were at once introduced by Dr. Workman, and the health and comfort of the patients have not since suffered from similar causes.

The next step was the removal of the criminal insane, in 1855, from this Asylum to a department of the penitentiary at Kingston, where all of this class are now received. In 1856, the accommodations of the Asylum were added to by the opening of a building in the City, designed for a university. This was fitted up as an auxiliary asylum, and contains lodgings for about sixty patients.

In his present Report Dr. W. records the highly satisfactory condition of the Asylum, as regards health and general prosperity. The condition of the insane in the Province to whom no admission can be given is, however, made the subject of elaborate inquiry, and of an earnest protest in the Report. In addition to the evil of insuffi-

cient provision for the care of the insane, is that of the law which does not permit the removal of incurables to make room for acute cases. Upwards of three-fourths of the number under care Dr. W. regards as positively incurable, and only one-ninth as curable cases. An estimate of the possible admissions in future years—supposing the present arrangements to continue—is made from the previous rate of mortality, the ages of the patients, their physical condition, &c., and leaves little to hope for the acute cases which must constantly occur. To this is added the following statement and appeal:—

"The representations daily reaching me of domestic distress endured by the relatives and friends of the insane, and of suffering and privation undergone by the unhappy victims themselves, in consequence of exclusion from the benefits of Asylum residence and treatment, are of the most harrowing character, and their continual perusal might well lead to the employment by me of very strong language, in urging on the authorities of the land prompt and vigorous action in the procuring of additional accommodation for a class of our fellow beings, whose claims on Christian sympathy are certainly of the highest order, and can not be overlooked without danger of the just indignation of Heaven.

* * * * *

"The affliction of insanity is, in itself, a calamity sufficiently distressing to any family in which it occurs, without additional aggravating circumstances. Is it not horrible to think of the father or the mother of a numerous family, because of defect of asylum-accommodation, dragged off, manacled and pinioned, to the common gaol, and there cast among felons, thieves, and prostitutes, to wallow in moral and physical pollution, until, by the death or the recovery of some more fortunate lunatic, a bed shall be left vacant in the Asylum, which may, in fair rotation, be awarded to the case? Fathers, mothers, sons, daughters, husbands, wives, are constantly in this Christian Province passing through this ordeal. Surely this evil will not be permitted to continue."

The statistical tables given are minutely analyzed.

"The incident insanity of the cities," says Dr. W., "as compared with that of the counties, is, according to the number of cases sent to the Asylum in the last five and a half years, as $5\frac{1}{2}$ to 1. The difference of mortality in city and county cases, as shown in the preceding table, is striking, and may be regarded as a fair illustration of the destructive influence of city residence and city dissipation."

The general statistics for ten months are : Admitted 87 ; discharged 75,—of whom 18 died.

22. The Asylum at St. Johns, N. B., is still, at eleven years since its opening, but about one-half finished, and is in consequence suffering excessively from defective economic arrangements, as well as from an overcrowded condition of its wards. Upon this subject the representations of Dr. Waddell are repeated by the Commissioners appointed to inquire into the management of the Asylum. They say :—

“ Its present condition, although as comfortable as can be made under the circumstances, has excited our deepest solicitude. The existing accommodations are not sufficiently extensive—the patients are overcrowded—there is not room enough for proper classification. We feel bound to say that the institution requires to be enlarged to the extent of the original design. The increased accommodation is absolutely necessary for the proper treatment, and comfort, and improvement of the patients. We urge that early arrangements be made to complete it.”

155 patients remained under treatment at the date of the Report. 87 had been admitted, and 81 discharged during the year. Of the latter 37 were recovered, 18 improved, and 26 had died.

A review of the chief features of these Reports, as brought together in a notice, presents many points for consideration, not suggested as they are taken up separately. It has been, however, the purpose of the writer to give in a convenient form the more important facts of the reports rather than to comment upon them, and the latter task cannot now be undertaken. A few words only may be added upon some points not fully brought out in the abstracts and quotations already given.

The most prominent topic of nearly all the Reports is the still imperfect and insufficient provision for the care of public patients in the several States. This is so strikingly the case, that a stranger would be ready to conclude, upon a careful perusal of these documents, that the decent and humane care of the pauper insane is the exception rather than the rule, throughout the land. Mistaken as such

a conclusion would be, there is too much to warrant it. It will be seen that, without exception, in those asylums from which incurables of the pauper class are not removed, the standard of a proper and humane care is maintained, if at all, with the greatest difficulty ; while though in the curative institutions public patients have every advantage, we know that those returned to the county-houses, if they are not brutally treated or entirely neglected, are disposed of in a manner that is a deep reproach to a Christian civilization.

That this evil is not so much owing to the defects of any one system of public charity as to the lack of enlightened sentiment upon the subject among communities, and a general repugnance to it, must be admitted. We have endeavored to bring out all the various legal methods of placing and supporting patients in institutions for the insane in the several States, and it will be seen that difficulties arise almost equally under each. On the one hand, where the State assumes in theory the entire charge of the pauper insane, the institutions as they become crowded with incurables lose their hold upon the popular interest, and easily fall under the control of political jobbers and placemen. On the other, where the matter is left nearly discretionary with local boards in counties and towns, the burden of support falls too directly upon the latter, and a narrow and parsimonious policy is the result. Perhaps the system most generally adopted, a middle one between that of entire State support and wholly local charge, is attended with the fewest evils in its operation.

In no direction, however, from the suggestions of the Reports, or from our own observation, can we derive any considerable encouragement for the expectation of reform in this matter. Voluntary charitable effort through Christian associations has, in many towns within the past few years, organized and maintained orphan asylums, and homes for the aged, the friendless, and the outcast. Several instances have also come to our notice in which city and county asylums for the chronic insane have been elevated and assisted by similar associations. That this most legitimate and competent source of remedy for an evil so crying and disgraceful should be, in the light of past

experience, really so unpromising is a curious illustration of the want of symmetry and solidity which belongs to a much-vaunted civilization. In nearly every State are hundreds of villages, the majority of whose producing population belong to Christian churches, each perhaps supporting its foreign missionary, and giving liberally to sustain bible and tract societies, home missions, educational institutes, &c., while the incurable insane of their own citizens are chained in cells from one month to another, with little or no clothing or other means for warmth, lying in loose straw and in their own filth, and in every way treated like dangerous wild beasts !

The differences of nomenclature, and in statistical tables found in the Reports are greatly to be lamented, and deserve to be regulated by general agreement. In many Reports no special or descriptive statistics are given, while in others they are drawn out to the last degree of minuteness. Yet even more important than a sameness of form in these tables is, that we should be able to understand the meaning of those prepared. For instance, to the professional reader there would be no table more interesting, as descriptive of the field occupied by any institution, even if not valued for purposes of generalization, than that setting forth the forms of mental disease in those admitted. But we find in some of these tables the greater portion to be cases of "moral insanity." In others nearly all the cases are termed "monomania;" and in still others there are by far too many entered under the heads of hysteria, hypochondria, &c. It is to be supposed that but comparatively few cases of these latter affections uncomplicated with insanity are sent to public institutions, even when their wards are not demanded for more legitimate cases of disease.

In several of the more valuable and generally-quoted reports it has seemed to us that, in the effort to elevate public sentiment upon the nature and practical treatment of insanity, scientific truths have been too much disallowed or ignored in behalf of this purpose. It is, for instance, no doubt proper to advise that every one should regard himself as liable to an attack of insanity; for the etiology of the disease is little understood at best, and one's own estimate of the

infirmities and susceptibilities of his mental organization is, perhaps, least of all to be relied upon. But is insanity properly compared as to its origin and development with bodily diseases in general? In season, climate, soils, atmospheric changes, etc., we find the proper causes of fevers. Upon certain lesions, varieties of exposure, and other definite conditions are almost sure to follow special inflammatory processes. From various pernicious habits, irregularities and excesses there follow certain functional derangements, as dyspepsia and headache, according to the nature of the disturbing agency. But is not all this entirely changed in insanity? That amount of emotional shock, of mental effort, of bodily disorder, or even of positive cerebral lesion, which might in one of a hundred cases be followed by insanity, in the ninety-nine remaining would have no appreciable effect. In scrofula, gout, and other so-called blood diseases we refer the origin to a constitutional vice, which though sometimes acquired is generally inherited. Yet statistics compel us to attribute a far greater influence to heredity in mental disease than in any other, and it can scarcely be profitable to make light of its importance in popular teaching, while so much prominence is accorded it in a scientific point of view.

The present notice, with that in the last number of the *JOURNAL*, embraces all the latest Reports of institutions for the insane in this country that have been received, and with two or three exceptions, we believe, all that have been published. Those of the State Asylums of Virginia were noticed in a former volume.

We present in closing a table of general statistics of thirty-seven Reports of American institutions for the insane. Nearly all these are for the year 1858, or a fiscal year nearly corresponding, as given in the titles at the head of the notices. A few others for the year 1858 have not been received. It will be remarked how little difference exists in the ratio of recoveries to admissions among the several institutions. The average is 41.3 per cent. The entire number of admissions as tabulated is 5,627, and the corresponding recoveries amount to 1,977. The total number in the thirty-seven institutions

was 13, 085. In seven Reports the statistics were for two years. These are indicated in the table by a star attached to the names :—

SUMMARY OF STATISTICS OF AMERICAN INSTITUTIONS FOR THE INSANE.

NAMES OF INSTITUTIONS.	Admitted.	Discharged.	Remaining.	Total Treated.	Recovered.	Improved.	Unimproved.	Died.	Per cent. Recov'd on Admissions.
Maine Hospital,	126	126	208	334	59	25	18	24	46.82
New Hampshire Asylum,	98	85	182	267	31	22	18	14	22.45
Vermont Asylum,	157	155	415	570	80	17	19	39	50.95
Massachusetts Hospital at Worcester, ...	307	376	301	679	127	174	41	34	41.36
Massachusetts Hospital at Taunton, ...	223	249	301	550	84	27	97	40	37.66
McLean Asylum,	185	147	186	333	72	29	21	25	38.81
Butler Hospital, (R. L.),	47	52	135	187	22	7	14	12	46.81
Hartford (Conn.) Retreat,	141	134	215	349	61	34	29	10	59.57
New York State Asylum,	333	282	502	784	114	33	99	31	34.23
Bloomington Asylum,	112	113	145	258	34	34	34	11	30.35
New York City Asylum,	355	327	655	982				92	46.00
Kings Co. (N. Y.) Asylum,	187	165	290	455	86	49	10	20	46.00
New Jersey State Asylum,	147	133	293	426	62	51	4	16	37.70
Pennsylvania Hospital,	131	131	230	361	63	41	9	18	48.09
Pennsylvania State Hospital,	151	134	267	401	36	30	54	14	23.84
Western Pennsylvania Hospital,	83	67	90	157	34	13	8	12	40.96
Friends' Asylum, (Pa.),	24	24	62	86	11	5	5	3	45.83
Philadelphia City Asylum,	376	366	416					111	
Mount Hope Institution, (Md.),	138	130	145	275	61	36	20	13	44.34
Government Hospital, (D. C.),	43	36	117	153	18	2	3	13	41.86
Virginia Eastern Asylum,*	161	136	257	393	32	24	11	69	19.25
Virginia Western Asylum,*	136	135	389	524	62	19	8	46	45.69
North Carolina State Hospital,*	57	49	146	195	24	6	10	9	42.10
South Carolina State Asylum,	69	64	193	256	35	8		21	50.72
Mississippi State Asylum,	59	36	106	142	21	3	6	7	35.59
Louisiana State Asylum,	84	73	137	209	32	9	5	27	38.19
Tennessee State Hospital,*	122	69	158	227	28	12	10	19	22.95
Kentucky Eastern Asylum,	100	70	228	298	37		13	20	37.00
Kentucky Western Asylum,*	95	74	108	182	38	13	5	18	40.00
Missouri State Hospital,*	122	86	171	257	45	12	7	22	36.88
Indiana State Hospital,	310	104	277	381	81	11	3	8	26.12
Illinois State Hospital,*	312	297	229	526	164	31	60	42	52.50
Ohio Central Asylum,	175	179	255	434	101	12	47	19	57.71
Ohio Northern Asylum,	123	116	155	271	66	16	27	7	53.60
Hamilton Co. (O.) Asylum,	164	121	273	394	62	17	8	17	37.80
Canada West Provincial Asylum,	87	75	478	553	57			18	65.51
New Brunswick Asylum,	87	81	155	236	37	18		26	42.50

SUMMARY.

DR. RAY ON THE TESTIMONY OF MEDICAL EXPERTS IN JURY TRIALS.

—The admissibility of the evidence of experts in courts of justice, has long been settled, but there is still some discrepancy as to the conditions of its admission, sufficiently important to deserve a most careful consideration.

Of late years, cases have become more and more frequent, in which such evidence has been admitted touching the mental condition of one of the parties; and the expert is even allowed to form his opinion, solely, perhaps, on the statements of other witnesses, without any personal examination of the party himself. Counsel, it is true, often endeavor to discredit such evidence, by calling it theoretical and speculative, but if they really believe what they say, they only show a great misapprehension of the nature of the question. The mental condition of a person is manifested by his conduct and conversation, by his acts, his opinions, his manners and deportment, all which are matter of observation, and may come within the cognizance of others beside that of the expert. Although a personal interview may sometimes reveal all that is required, yet, more frequently, from the very nature of the case, the expert obtains from it no satisfactory results. What a man may happen to say or do, in the course of a brief interview with a stranger, may be of little significance, as compared with his mental manifestations during a period of weeks or months, when following the bent of his inclinations without restraint, and with opportunities for carrying his diseased fancies into practical effect. There is nothing singular in this. Medical opinions in regard to other diseases than insanity are seldom founded exclusively on a personal examination of the patient. Facts of the highest importance are often learned from friends and nurses, and could have been learned perhaps only from them, but are none the less valuable on that account.

An opinion respecting the mental condition of a person whose sanity is in question, must be founded upon his previous history; at least, so much of it, as may be supposed to throw any light upon his mental condition at some particular time. In a doubtful case, it would only indicate the height of ignorance and presumption to arrive at a positive conclusion on the strength of a single interview, or of any other very limited source of information. Indeed, we can hardly conceive of any case requiring investigation, plain enough to be settled in this manner. We know that patients are, every day, received

into our hospitals for the insane, on the strongest representations of friends, yet, for days and weeks together, though subjected to the closest scrutiny, they may betray not the slightest indication of insanity. The power of self-control is exhausted, sooner or later, no doubt, and the disease is evinced by unmistakable evidence; but the fact shows conclusively, that the observation of a man's neighbors and acquaintances may furnish far more satisfactory proof of his insanity, than any single examination of the most accomplished expert. Of course, there is no other way of obtaining the object, in cases where the alleged insanity has disappeared, or the party has deceased.

It has also been objected to the testimony of experts on this subject, that in consequence of their intimate association with the insane, and their familiarity with the manifestations of the disordered mind, they overlook the sharp distinctions that really exist between the sane and the insane condition. Engrossed as they are in their favorite study, they look at all men through a distorted medium, and thus see insanity where others of a different training, see only the normal operations of the mind. That such persons may often see insanity where it is unperceived by others, is just what might and ought to be expected of men of intelligence and discernment, with abundant opportunities for observation. It would be but a poor compliment to them, to say that after all, the delicate shades of mental disease, the faintest possible lines that divide sanity from insanity, those equivocal phases of mind which neither the philosopher nor the practical observer of men attempt to explain, are no more clearly discerned by them than by others.

The insanity which lies on the surface is obvious enough to all, but it is only the practised observer of the disease, who can detect it in its milder forms, or when controlled and concealed by the sounder operations of the mind. To him, a look, a gesture, a turn of thought, a mode of expression, scarcely discernible by others, may supply a hint that leads to the most satisfactory proofs. It is not common, we apprehend, to suppose that great attainments in a physical science unfit a man for giving reliable opinions on points connected with it; and it is not easy to see any exception to the general rule in regard to insanity, which, beyond all others, can be understood only by means of a long personal observation. It is no presumption to say that the man who has spent the best years of his life in daily intercourse with the insane, is thereby better qualified, other things being equal, to enlighten a court of justice on difficult questions of insanity, than men without such experience, though otherwise intelligent, and, perhaps, with remarkable knowledge of human nature. The proposition seems too clear for argument or illustration, and yet, in practise, no objection to the value of medical testimony on the subject of insanity, is more commonly or more effectually urged, than the one under consideration.—*From the Boston Law Reporter, July, 1859.*

DR. GALT ON IDIOCY AND THE HISTORY OF PROVISION FOR IDIOTS.—Of the definitions of idiocy, that of Mr. Sagaert seems as satisfactory as any other—"that diseased condition of the cerebral organ, in consequence of which an individual, under ordinary circumstances, is prevented from attaining to that degree of mental development and maturity usually possessed by children in early infancy."

He who has witnessed the distress which is entailed by the existence of an idiot in a single family, will be measurably prepared to give his sanction to any rational scheme for alleviating such a visitation. But we find that idiots constitute a large class as compared with some other sufferers who have called forth the sympathies of the public into the most decided action. Thus they far exceed in numbers the deaf-mute for whom so much has been done. The number of idiots in the American Union may be estimated at 35,000.

Idiocy being a morbid diathesis of universal prevalence amongst civilized nations, it can scarcely be wondered at, when so much has been effected for the remaining divisions of those with the mind in a peculiar condition, that at last steps have been recently taken to provide for the pitiable idiot. After the insane, the deaf-mute and the blind have been general objects of systematic and practical charity for many years. When we look into any practical procedure, after a theory has been advanced for any precise time apparently, it generally happens, that further research reveals the germ of such theory far in the past. In the present light, we may designate three items of this character.

In the first place, idiots have ever and anon been placed in the institutions for the deaf and dumb, and this is natural enough, for some idiots are mute—though not from an incapability of hearing; instances of the kind, however, might easily be confounded with deaf-mutes. A case of this order is mentioned by Esquirol, and indeed we presume that other establishments than that thus referred to have received one or more. Secondly, Dr. Richard Poole, formerly superintendent of the Montrose asylum for the insane, in an article on education, in the *Encyclopedia Edinensis*, published in 1827, made some striking observations on the practicability of improving the condition of the imbecile. A third source is traceable in a circumstance occurring in France in 1801. M. Bonnaterra discovered at this date, a wild boy in the forest of Aveyron. Pinel pronounced him idiotic; but Itard, physician-en-chef of the deaf and dumb, declared him to be merely untaught. Itard took him to his own house, and for six years made energetic but unavailing efforts to educate him; and ultimately the unfortunate was conveyed to a hospital, where he ended his days. A result, however, of Itard's labors were two volumes which he published in 1807; and in 1837, Sequin, an eminent founder of the present amelioration, in commencing his exertions, may be said to have derived assistance from this experiment and its

teachings. Sequin's exertions were thus begun at the Bicêtre ; and about the same period, M. C. M. Sagaert, the director of the institution for deaf-mutes at Berlin, founded in that city the existing excellent asylum for idiots. In point of fact, there have been several physicians of note, who have turned their attention in France for many years in this direction—Voisin, Ferrus, Belhomme. In 1828, Ferrus, then the principal physician at Bicêtre, undertook the education of the more intelligent idiots ; and in 1839, when Dr. Voisin was made physician of the establishment, a school was organized, which although producing some good effects, was very incomplete, until M. Sequin, who since 1837, as above stated, had occupied himself in private with the education of idiots, was in 1842 named director.

The following list includes most of the institutions for the idiotic, now in operation. In Scotland, two—one at Baldovan, and a second at Edinburgh. In England, at Redhill, Highgate, Colchester and Bath. Dr. Hybertz has devoted himself to this cause in Copenhagen, and also M. Moldenhawer. In Schleswig, Dr. Hansen is similarly employed. At Bendorf, near Coblenz, Dr. Erlemeyer has a small establishment of the kind. In Saxony, Dr. Kern at Leipsic, and Dr. Gläusche at Hubertsburg, near Dresden ; in Wurtemberg, Dr. Müller at Winterbach, and Dr. Zimmers at Mariaberg, are all in charge of institutions for treating idiocy. As likewise Pastor Frobst at Exberg in Bavaria, and Pastor Bost at Laforce in France. There are also schools for adult idiots in the lunatic asylum of Middlesex county, at Hanwell, England, and at the Bicêtre in France. In this country, there is a State institution at Boston, at Syracuse and at Columbus. That now at Germantown is to be removed to a spot near Media, the county seat of Delaware county, Pennsylvania. An English journal enumerates Virginia amongst the States possessing charities of the kind. But it seems our policy ever to allow ourselves to be outstripped in some matters by our sister States of the Union. There is likewise a private establishment for Idiots at Barre, Massachusetts.—*Extract from a Lecture on Idiocy, by John M. Galt, M. D., Superintendent Eastern (Va.) Lunatic Asylum.*

NEW LUNATIC ASYLUM IN TROY, N. Y.—A new Lunatic Asylum, in connection with the Marshall Infirmary, Troy, N. Y., was opened to patients, in September ult.

These Institutions have a most healthful and beautiful location, upon Mount Ida, overlooking the city of Troy, and commanding a view of the Hudson river and valley, of many miles in extent.

The Asylum-building, for the accommodation of about seventy patients, is located a few yards distant from the Infirmary. It is of brick, and built in the most substantial manner. It is heated with steam, and its water-supply and other economic and sanitary means are liberal and complete. The organization is that of an incorporated charity, and its affairs, together with those of the Infirmary, are committed to a board of Governors. Arrangements have been made for the treatment of the pauper insane of the county of Rensselaer to fill accommodations not in use for pay-patients, and it is expected that the Asylum will be of great value in enlarging and reforming the charity-system of the City and County. Dr. Le Roy M'Lean is the resident physician of the Institutions.

NEW WESTERN PENNSYLVANIA HOSPITAL.—The corner-stone of a new building for the Insane Department of the Western Pennsylvania Hospital, was laid on the 19th of July ult. The interesting ceremonies were witnessed by a large number of citizens, and distinguished visitors from various parts of the State.

A fine farm, near the city of Pittsburgh, is the site of the new edifice, which is to be of the first class, in every respect. A full description with plans is promised for a future number of the JOURNAL.

CORRECTIONS.—The first number of the present volume, in the article on Sitomania, has several inaccuracies, which should be corrected as follows:—

On page 11, fifth line from top, and on pages 23 and 24, for "Mottley" read "Matthey."

On page 25, in second line of second paragraph, read "common" before "*point d'appui*."

On page 28, for "Sursheim" read "Spurzheim."

On page 34, in last paragraph, for "Bruxelles' instrument," read "Another instrument, somewhat resembling that of Bougard."

On page 35, third line from top, for "Bruxelles" read "Bougard."

BOOKS AND PERIODICALS.

Since our last issue the following publications have been received.

Annual Address delivered before the Medical Society of the State of New York, and Members of the Legislature, in the Capitol, at Albany, February 2nd, 1859. by Thos. C. Brinsmade, M. D., President of the Society. Albany: Charles Van Benthuysen, Printer, 1859.

An Address on the Registration of Diseases, Reprinted, with Additions, from the Transactions of the N. Y. State Medical Society, for the year 1859. By William C. Rogers, M. D., Green Island, Albany Co., N. Y. Troy, N. Y.: 1859.

The Testimony of Medical Experts, and the Reading of Medical Books in Jury Trials. By I. Ray, M. D. From the Boston Law Reporter for July, 1859. Boston: Press of Geo. C. Rand & Avery, 1859.

The Report of the Resident Physician of the New York City Lunatic Asylum, Blackwell's Island, for the year 1858. New York: 1859.

Report of the Regents of the Lunatic Asylum to the Legislature of South Carolina: November, 1858. Columbia, S. C.: 1858.

Annual Report of the Resident Physician of the Kings County Lunatic Asylum, for the year ending July 31st, 1859. Brooklyn: 1859.

MEDICAL EXCHANGES.

Oesterreichische Zeitschrift für Practische Heilkunde. Vienna.

Annales Médico-Psychologiques. Paris.

Bulletin de L'Académie Impériale de Médecine. Paris.

Archives des Sciences Physiques et Naturelles. Geneva.

The Journal of Mental Science. London.

Dublin Quarterly Journal of Medical Science. Dublin.

The Dublin Medical Press. Dublin.

British and Foreign Medico-Chirurgical Review. London. American Reprint.

New York Monthly Review of Medical and Surgical Science, and Buffalo Medical Journal. Buffalo, N. Y.

New York Journal of Medicine. New York.

American Medical Gazette. New York. (Nos. 3, 5, 8, 9, Vol. xx., not rec'd.)

American Medical Monthly. New York. (No. 2, Vol. x., not received.)

The Scalpel. New York.

North American Medico-Chirurgical Review. Philadelphia.

American Journal of the Medical Sciences. "

- The American Journal of Dental Science. Philadelphia.
Rankings' Half-Yearly Abstract. "
The Medical News and Library. "
The Medical and Surgical Reporter. "
The American Journal of Pharmacy. "
Journal of the Franklin Institute. "
Journal of Prison Discipline and Philanthropy. "
The Dental Cosmos. "
The American Law Register. "
Quarterly Summary of the Transactions of the College of Physicians of Philadelphia. Philadelphia.
The Virginia Medical Journal. Richmond, Va.
The Charleston Medical Journal and Review. Charleston, S. C.
Atlanta Medical and Surgical Journal. Atlanta, Ga. (No. 1, Vol. III., not received.)
Southern Medical and Surgical Journal. Augusta, Ga.
Oglethorpe Medical and Surgical Journal. Savannah, Ga.
New Orleans Medical and Surgical Journal. New Orleans.
Pacific Medical and Surgical Journal, San Francisco, Cal.
St. Louis Medical and Surgical Journal. St. Louis, Mo. (No. 3, Vol. XVI., not received.)
Nashville Journal of Medicine and Surgery. Nashville, Tenn.
Nashville Monthly Record of Medical and Physical Science. Nashville, Tenn.
Cincinnati Lancet and Observer. Cincinnati, Ohio.
The Western Law Monthly. Cleveland, O.
The Chicago Medical Journal. Chicago, Ill.
Peninsular and Independent Medical Journal. Detroit, Mich.
The American Journal of Education. Hartford, Conn.